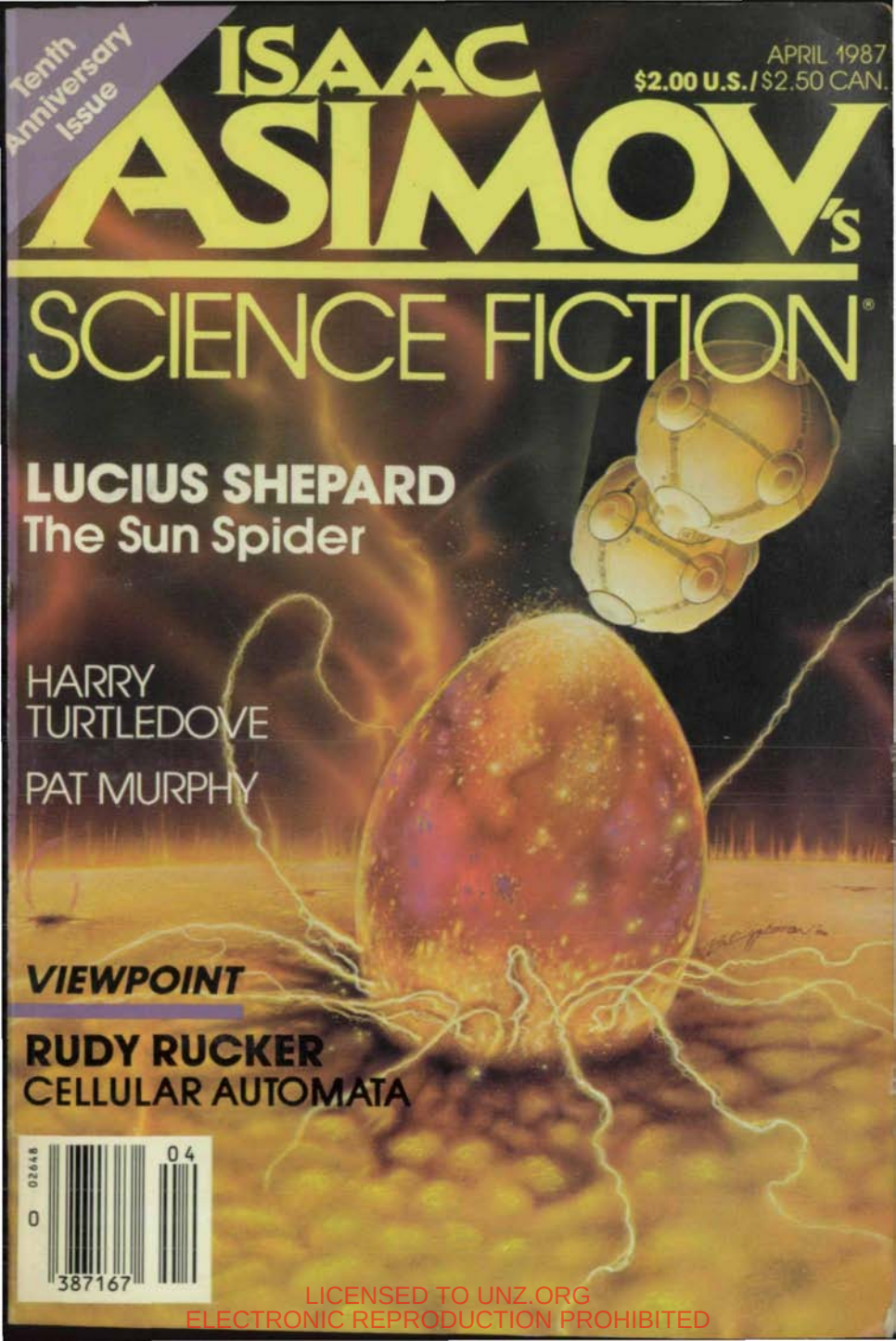

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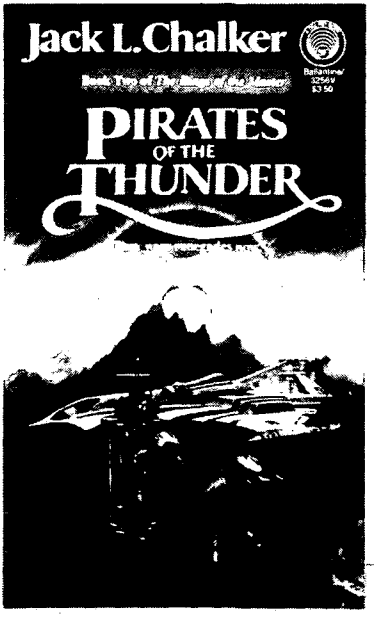

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EDITORIAL

by Isaac Asimov

TRUTH AND FICTION

In January 1986, I agreed to go to a certain office building in midtown New York and there, in the conference room of a legal firm, to videotape a fifteen-minute talk that would later be played at some convention to be held in a city that I, with my aversion to travel, could not reach. I was promised that the cameraman would arrive at 9:00 A.M. and would be all ready to go when I got there at 9:30 A.M.

When I arrived (on time), behold, not only was the cameraman not ready, but he was not even there—although he was reputed to be a thorough professional and very reliable. Since he was based in the midwest, I wondered if he had arrived in New York.

The people involved inquired of the hotel he was staying at (the New York Hilton right across the street) and he had indeed checked in the night before. I suggested that the hotel's security people enter his room in case "something had happened." They did. He and his TV equipment were not there, but his baggage was. We inquired concerning the possibility of a traffic accident as he had crossed the street. There was none. We checked the lobby to see if he was wandering about there. He wasn't. The receptionist of the firm swore no cameraman had entered the door.

After waiting an hour I went home, promising to come back and do the job another time *if* they let me know the solution of the problem. It quickly turned out that the cameraman *had* arrived, but in his enthusiasm, had arrived before the receptionist did. He was let in by an early-working lawyer of the firm who had led him to the wrong conference room (immediately adjacent to the right one).

There we were, then, in one conference room, while the cameraman was in the next with only a wall separating us. We never thought to look in the other conference room; even the head lawyer of the firm didn't; and I, of course, didn't know there was another such room in the first place. The cameraman *did* look in our room, saw my back, assumed I was a client in legal conference and tiptoed away. He called the top lawyer's secre-

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tary to inquire, but she didn't know where her boss was (he was down with us in *our* conference room).

It was all a comedy of errors, and I was delighted when it was explained to me, for it was a perfect plot of the type I use for my "Black Widowers" mystery series. It was wonderful to have the plot handed to me and not have to make it up.

I promptly wrote the mystery, entitled it "Where is He?", and submitted it to Eleanor Sullivan, the beautiful editor of *Ellery Queen's Mystery Magazine.* I told her the genesis of the story, and when it appeared in the October, 1986 issue of *EQMM,* she stated in the blurb: "... the incident described ... happened in real life, exactly as described, to our own Dr. Asimov ..."

After the magazine hit the stands, I received a letter, dated 28 July 1986, from a woman in Wyoming, who was furious with me. She liked the Black Widowers mysteries, she explained, but "Where is He?" "was an incredible disappointment." It should have been rejected, she said.

Apparently, she considered the plot ridiculously weak. "I find it hard to believe," she said, concerning the conference room, "that a lawyer would not check to make sure he let the cameraman into the right one." [Well, he didn't.]

She also said that secretaries would be efficient, in fact, "super-efficient in a 'top' law firm" and "If I knew my boss to be in a conference room waiting to tape someone and received a call from a

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cameraman waiting to tape someone I am sure I'd make the connection and put them in touch with each other." [But the secretary knew nothing about it in the first place. It was a friend of the boss, not the boss himself, who was running the show—something I explained in the story.]

The letter-writer said, "No lawyer is so stupid that his secretary doesn't know where he is, and why, during business hours. *He tells her.*" [Well, I'm sorry, but the boss *didn't* tell her.]

She also denied that receptionists only arrive at the time they're supposed to. They're early, she said, and went on, "It is certainly more plausible that a receptionist show up early than that a lawyer should." She also wanted to know whether the lawyer was "working in the lobby to answer doors should anyone come early." [But the receptionist *didn't* get there till nearly nine, and the lawyer *was* there at 8:30 and even earlier, and heard a knocking at the door and opened it.]

Then, finally, she spent a whole page explaining to me, from her vantage point in a small town in Wyoming, that the addresses I gave for the New York Hilton and the building I was in were impossible addresses, and she even made a diagram to explain why they were impossible. [Yet the fact was that the New York Hilton is a real hotel; the cameraman was really checked in there; and, in the story, I gave the hotel's *real* address. I also gave the *real* address of the building I was in.]

I was as delighted with the letter as I was with the original plot. This was the only "Black Widowers" story in all the fifty-four I have so far written that was absolutely authentic, yet it was the only one she had found unbelievable. (I can only suppose she hadn't bothered to read the blurb.) All the others, which I had almost always woven out of whole cloth and produced as utter figments of my imagination, she had accepted solemnly and had apparently supposed to be thoroughly plausible.

Since one of the functions of these editorials is to give some insights into the life of a writer, for those of you who are trying to write, or who plan on trying to write someday, or who are just interested in writers, I want to use this account to point a moral. Be very careful how you use the truth. As long as you deal in pure fiction, you are quite likely to craft the story neatly, and make sure of making everthing plausible. As soon as you rely on truth you find yourself accepting the loopholes, ambiguities, and imperfections of real life, and thus laying yourself open to the kind of letter I have just described.

Let me give you another example of the need to beware of truth. It happened not long after the case I just described at length.

My dear wife, Janet, had gotten in touch with someone who was to visit our apartment and give an

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opinion on the best way of handling some small emergency that had arisen. I knew about it in a vague sort of way, but you can always count on me to be busy at the typewriter or word-processor, and to leave the minutiae of everyday life to Janet.

The day came, then, when Janet admitted a stranger into our apartment, and, of course, I remembered nothing of the reason for his coming. Noting the raised eyebrows on my face, and my look of honest puzzlement, Janet whispered, hurriedly, something about it being a good friend of hers.

Well, any good friend of Janet is a good friend of mine, so I greeted him heartily and wrung his hand and asked after his health and his family. In fact, the only thing that bothered me was that I didn't recognize him. It seemed to me that I knew (or, most certainly, that I *ought* to know) all of Janet's good friends.

So I seized an opportunity to take her to one side, and whispered to her, "Who is this good friend of yours? I don't know him."

And she whispered back, "He's not a good friend of mine. He's Mr. Goodfriend, an engineer who's come here to help us out."

"Wonderful," I said, grinning, because I had just been asked by *Boys' Life* magazine to write a small story for them and it seemed to me that, once again, the fates had handed me a plot. In no time at all, I wrote a little mystery in

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which confusion arose between "good friend" and "Goodfriend" and sent it off to *Boys' Life*. I was careful to state in the covering letter that the story reflected an incident that had really happened to me.

Alas, the story bounced. (Yes, it did, for those of you out there who may think that Isaac Asimov never gets rejections.) The editor, explaining the rejection (I may get rejections, but my position insures that I get very polite rejections, at least), said that this confusion between "good friend" and "Goodfriend" was all very well for real life, but was entirely too thin and implausible for fiction.

Please note that in both these cases, it was a mystery story I had written, not a science fiction story. Mystery stories usually deal with the conventional present-day social system, and every reader lives in that society, is an expert in it, and is ready to call you to account.

In a science fiction story, you not only make up the plot, you also make up your own social system against which the plot follows its course. It isn't impossible to find implausibilities in a social system of the writer's own devising, but it is certainly much harder.

So there's a good reason for writing science fiction that I've never seen described—It's safer. ●

OUR TENTH ANNIVERSARY

This, our 117th issue, represents our tenth anniversary. It is now ten years since the first issue of *IAsfm* appeared on the stands.

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I can freely crow over this, since I can claim no credit for myself except for whatever value my name has in the title of the magazine. Full credit goes to our four successive editors: George Scithers, Kathleen Moloney, Shawna McCarthy, and Gardner Dozois. And, of course, to our hard-working managing editor, Sheila Williams. They have made the hard choices and withstood the criticisms, and it is they who must now take the bows, while I grin from the sidelines.

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LETTERS

Dear Dr. Asimov,

I am a long time reader of your magazine (at least as far as a twenty-year old can be considered "long time"), and I have only one complaint. Why must you have two issues in December, of all months? I am a college student, and that extra issue always manages to arrive in the midst of final exams. Imagine the temptation! Worse, I am pre-med, so I have another five years of this torture to endure. Even non-students are forced to deal with the holiday crunch, so wouldn't it make sense to put that extra issue into some nice, reasonably dull month, like March or April? Or how about June 21? Just think, you wouldn't have to compete with subjects like Organic Chemistry for your readership!

By the way, thank you for the great fiction.

Sincerely,

Lisa Pearse
Emory University
Atlanta, GA

My dear Ms. Pearse, we don't have two issues in December. We have one issue every four weeks without fail. That means thirteen issues in each year. However, there are only twelve names of months, so two of the issues have to bear the same month-name. Arbitrarily we have the December issue and the mid-December issue, but they are four weeks apart just as the July and August issue are.

—Isaac Asimov

Dear Gardner,

I read with great pleasure Michael Swanwick's *Viewpoint* article, "A User's Guide to the Postmoderns," and learned much about a tangled subject. I would like to make two points.

He declares that when the postmoderns entered the field, it was in the doldrums, with the New/Old Wavers quiet and their successors, the Labor Day Group, maintaining a low profile, mostly writing big books—which he seems to disparage. Certainly he declares that "the cutting edge" of the field went to the postmoderns.

This last I don't dispute, but his interpretation of what went before is I think a little off. Take the New/Old Wave mutual bludgeoning-into-silence, as he puts it: that's not how I see it. What happened, I think, is that *the revolution succeeded*, so that there may be "old-fashioned" and more "modern" SF, but these waves have merged. It is notable that one of the gadflies of the New Wave, Norman Spinrad, is writing stuff that could never

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have been published before the New Wave, yet is not considered New Wave now—it is simply "contemporary SF." And so far from being old-hat obsolete, Spinrad is writing the best that he has ever done. It is by far too soon to say that the field has left such giants as this behind—though the new experiments may well be done by other and newer writers.

Further, the Labor Day Group can no more be counted out than can the New Wave mavens. George Martin's *Armageddon Rag* (to name one example) will long be cited as a masterwork. And it should be remembered that many of the postmodern experiments fail, as experiments frequently do. (Mr. Swanwick does not mention the, to me, startling flaw in James Kelly's otherwise excellent "Prisoner of Chillon": the protagonist is a woman, but "her" viewpoint is masculine. I was startled when "she" kissed Bonivard, it was so out of character.) Whereas the Labor Day Group seems to have mastered its own peculiar idiom, putting most such failures behind them, as the New Wave writers before them did.

This is not to deny that the cyberpunks, or postmoderns, have not had and will not continue to have a seminal influence. Indeed, my second point is thus pointed: I nearly had hysterics when I read Bruce Sterling's reported remarks to the effect that he supposed their idiom would now be bowdlerized and bastardized. That is, copied by every Tom, Dick, and Harry. Did he, did the postmoderns, really expect to "revolutionize" the field without *changing* anything? Or did they expect to be forever the gadflies, dancing around, doing their new thing, winning awards and kudos, against a background of impotent old writers who forever did the same old thing?

No, no. They've won; that is, they've seized the presidential palace and the radio station. The fun part is over; now comes the hard work. They haven't revolutionized the field until they've re-educated the populace, as the preceding waves of writers did. Now they must "bludgeon each other into silence," maintain a low profile, and write those big, solid, flawless books that will stand as textbooks, and monuments.

Meanwhile, the next generation of revolutionists is prying up the cobblestones and eyeing the palace walls. . . .

Rob Chilson
Kansas City, MO

I'm always astonished at how self-conscious revolutionaries are. Do they really sit around and decide to completely alter an art-form? I was one of those who revolutionized science fiction in the beginning of the "Golden Age" and never once did I think I was going to sweep away the deadwood, startle the world with new-fangled coruscation, and become the love of academe. As I recall, all I was trying to do was to sell a story now and then because I could use the money.

—Isaac Asimov

Dear Editors,

Though I agreed with much of Norman Spinrad's book review column (September), one statement

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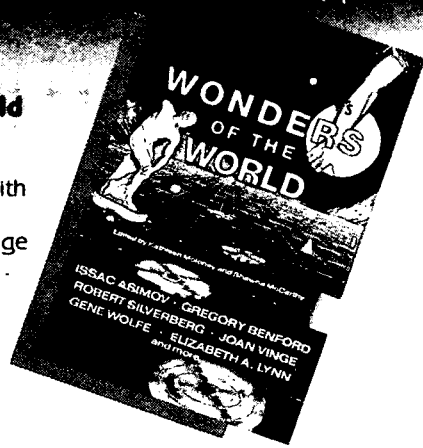

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finally sent me out of my chair and to the typewriter. Being a two-fingered typist, and not owning a word processor, I hate to type letters, but this demanded rebuttal.

Spinrad asserts "The famous Big Four of Asimov, Clarke, Heinlein, and Bradbury all have their characteristic virtues, [but] they can hardly be said to represent the literary cutting edge."

I have had it *over* my keister with these masters being patronized by their inferiors. Cutting edges do not necessarily make great art. Bach and Rembrandt were both considered quite out-of-date in their own times, and today stand at or very near the pinnacle of achievement in their respective arts. A goodly number of those at the edge of change in all the arts today will be justly forgotten in fifty years, with plenty of science fiction writers among them.

I rank the excitement generated by Clarke in *Rendezvous with Rama* and generated by Asimov in *The Robots of Dawn* among the premier esthetic (yes, I said *esthetic*) experiences of my life, and I'm no stranger to the arts in general.

This kind of excitement and wonder is unique to science fiction, but it is *esthetic*, and need not be dressed up as Nabokov or Joyce to make it "valid" as literature.

If more of the newer writers could evoke a comparable esthetic thrall, I would read them more often. In the meantime, I don't think SF need apologize to anyone for its masters.

Indeed, it's possible that the literary tradition Spinrad is so anxious to have SF become a part of is really a dying one, and Asimov, Clarke, and Heinlein (excuse me if I leave Bradbury out of this august company) have written some of the *really* enduring art fiction of this century.

And, Frederic Brown in "Arena," and James Blish in "Surface Tension"...

Charles Zigmund
Jackson Heights, NY

You've got to remember that the Big Three have been the Big Three for over forty years. I can't blame other SF writers for finding themselves annoyed at our rather stubborn longevity. I have frequently suggested to Clarke and Heinlein (both of whom are older than I am) that they stop writing and resign their Bigness in graceful fashion, but they simply won't. *Too bad, because I'd enjoy being the Big One.*

—Isaac Asimov

Dear Isaac,

I'm a little confused by Norman Spinrad's article on critical standards in the July issue. He said that science fiction needs better critics.

Why? To get the word out to the public that our work is good and thus increase sales? No, he says we're already "being read by larger and larger audiences and making more and more money." Can't be that.

To improve the quality of our fiction? That sounds more reasonable, but then he says that the best science fiction already deals better with the modern world than most mainstream books do, and mainstream fiction has, as he points out, had the benefit of the best criticism available for years.

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So, if science fiction is, without benefit of expert criticism, already producing better books and attracting more readers than mainstream, what good is criticism going to do?

To show up the current literary establishment? Why bother?

To hold the hands of authors who won't believe in what they're doing unless someone outside the field tells them so? If they're that wishy-washy, they're probably not going to produce top work anyway.

Somehow, I don't think his article provided any basis for his conclusion.

Yours,

Buck Coulson
Hartford City, IN

I've never really given much thought to the kind of criticism that science fiction needs. An interesting thought, I admit, but not one that catches at me. I have *given thought to the kind of literary critic* I *need and, to be perfectly honest, it's the kind who can't think of a single bad word to say about me.*

—Isaac Asimov

Dear Dr. Asimov, Mr. Dozois, Mr. Spinrad, & Co:

The September issue of *Asimov* was one of the more interesting in recent times. Were the editorial "Integrity" and the essay "On Books: Critical Standards" planned as a set? I certainly hope that you never have that problem with your advertisers; I'm sure that if any publisher pulled advertisements from *Asimov* (or any of the other Davis publications for that matter) all you would have to do is say so and your readers would be more than happy to boycott them. I think that it was rather courageous of Mr. Spinrad to say what he did, although I can't say whether or not it was justified, not having read/heard *Always Coming Home* or read *Dancer*. By the way, the Nobel Prize, last time I checked, is not an electoral award, at least it is not voted upon by the public. In fact, I believe that no one outside of the committee knows who has been nominated or even who does the nominating! Why don't you and the directors and editors of the other science fiction magazines form a Foundation (Dr. Asimov?) and award a prize yourselves? It could work rather like the Nobel Prize, with recipients being chosen by a mysterious group of people without knowing that they've been nominated. The only problem would be choosing the committee; how do the Swedes do it? Any wealthy fans or authors out there willing to donate to the Fund? Oh well, doesn't hurt to dream.

Sincerly,

W. Paul Blase
1518 Superior
Fairborn, OH 45324

I'm afraid that if "a mysterious group of people" awarded a major science fiction prize, the repercussions would be awesome. Science fiction writers (and readers) are remarkable for their articulacy and for their creative use of invective. Even the staid Nobel Prize has created bitter controversy. In science such controversy is conducted in whispers; in science fiction it would be conducted Krakatoa-fashion.

—Isaac Asimov

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Dear Sirs,

I'd like to correct Norman Spinrad's assertion in the September *Asimov's* that "after the publication of *The Dispossessed*, Le Guin began to take pains to deny that she had ever been a science fiction writer." This is untrue. The pains I've taken have been (as now) to contradict people, in SF and out of it, who insist that I'm not a science fiction writer. Of course I am. I've written both science fiction and other stuff from the start, and hope to go on doing so. It just makes no sense to me to separate science fiction off in this "if you do this you can't do that" way—as if being good at dancing meant you couldn't walk.

Yours very truly,

Granola Eating Woman
aka Ursula Le Guin

Thank you, Ursula. By firmly placing yourself on the science fiction side of the fence—at least to the extent that you write it—you strengthen us all.

—Isaac Asimov

Messrs. Asimov, Dozois, & Co.:

Aside from general congratulations on the continuing ambition and tone of the magazine—Gardner Dozois, it seems to me, is carrying on splendidly in the balance of innovation and solid story established as a tradition by his predecessor, Shawna McCarthy—I wanted to pass along particular praise for publishing Michael Swanwick's article, "A User's Guide to the Postmoderns."

Although I'm sure many readers would rather the space have been devoted to more fiction, I suspect that many others of your loyal readers must have been appreciative of Mr. Swanwick's very perceptive and reasonably complete overview of the state of contemporary SF. I have to admit, though, that my favorite aspect of the article was the author's wit. This was quite funny stuff, and it was the humor that truly carried the great amount of largely valid information! You probably shouldn't have so major a chunk of nonfiction in every issue—but when you do, I hope it will be as provocative, informative, and entertaining as the Swanwick piece.

All the best,

Edward Bryant
Denver, CO

An interesting magazine shouldn't have too much of anything too often. If we divide material of interest to readers into fifty-six categories then more important than any one of them is the variability of mix, if you see what I mean. If I like x *three times as much as* y *then I don't want* only x. *I want* y, *too, —one-third of the time.*

—Isaac Asimov

Dear Dr. Asimov:

It has been said, "It takes a great man to finally admit when he is wrong." The foregoing statement has been uttered so often in the many years since it was first coined, that it has unfortunately become a cliche. In your particular case, it is not a cliche, but a truism. I refer, of course, to your brief yet concise answer to April Kihlstrom's letter in the September 1986 issue of your great magazine.

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New Data on L. RON HUBBARD'S

WRITERS OF THE FUTURE CONTEST

by Algis Budrys

Good news. L. Ron Hubbard's Writers of The Future Contest has been extended to the end of 1987, and even if you don't win a prize there are fresh features that could do you a lot of good.

First, there are meaningful no-strings cash prizes, and fringe benefits including recognition, encouragement, and a publication offer to the winners and some runners-up. Added have been faster reporting times, professional writing hints on your stories that *nearly* made it, and a series of invitational tuition-free special workshops for winners and some finalists, taught by expert speculative-fiction writers. So if you're an aspiring author of fantasy or science fiction, with no more than three short stories or one novelette professionally published, here's all you do: Enter the contest.

Every three-month quarter, beginning January 1, there's a round of judging for original manuscripts up to 17,000 words. A panel of top judges then selects three winners of $1000, $750 and $500. Third and Second Place also receive framed, very handsome certificates. First place receives a trophy guaranteed to dominate almost any mantelpiece. . . . And while the checks are mailed to the winners quickly, the certificates and trophies are conferred at our annual Awards ceremony, to which our new writers are invited, expenses paid.

Then, from among the four quarterly First Place winners, a special panel of judges selects the winner of the L. Ron Hubbard Gold Award to The Author Of The Writers of The Future Story of The Year. The announcement is made at the Awards, and results in an even more elegant trophy, plus an additional $4000.

Want some? There's no entry fee, and submitting your manuscript conveys no publication rights. (We do ask you to enclose a stamped, self-addressed return envelope.)

What wins is any kind of good science fiction or fantasy, in the opinion of our top judges, who include Gregory Benford, Anne McCaffrey, Larry Niven, Jerry Pournelle, Robert Silverberg, Jack Williamson, Gene Wolfe and Roger Zelazny.

Then there are the anthologies — *L. Ron Hubbard Presents WRITERS OF THE FUTURE Vols. I, II,* and, as of early 1987, *III*. I edit them for Bridge Publications, and we offer payments of up to $1000, in addition to the Contest prizes. The anthologies — which have impressed a lot of people, including other editors and publishers — publish the winners, and some runners-up. (They also include how-to-write essays by some of our judges.)

Summing up: If your story makes it into the semi-finals, you'll get it back with a helpfully intended critique from me. If it gets into the Finals, you may get a prize, you may at least get a publication offer, and if you're in the anthology, you're automatically invited to our next workshop, where we teach idea generation, idea improvement, and career management, along with other professional skills.

Good enough? Then you can write in for complete entry rules, or you can just go ahead and submit a manuscript, to:

Writers of the Future Contest
P.O. Box 1630
Los Angeles, CA 90078

A rational approach would be to borrow or buy the anthologies and study them. (The first two have an obsolete Contest address in them, but the mail will be forwarded.) They're $3.95 paperbacks, and you might as well see what you've been missing.

Meet you at the Awards?

— *Algis Budrys*

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Her letter concerned the common erroneous belief held by many modern science fiction writers that the genre had never predicted the live television coverage of the first moon landing. She dispelled that silly assumption by citing as an example Arthur C. Clarke's *Master of Space*, published in 1961. You then admitted that Ms. Kihlstrom was correct, that it *had* been predicted, and that you were the one responsible for first starting this misconception which several of your peers have echoed over the intervening years.

I now feel duty bound to point out the following seven earlier examples. They are listed in reverse chronological order:

1956. Arthur C. Clarke again. In his multi-part story, "Venture to the Moon," his international lunar expedition constantly made on-the-spot television broadcasts of their progress.

1953. Something of a banner year for such predictions. In his short story, "The Moon Is Death," Raymond F. Jones included televised coverage of lunar exploration so that his American astronauts could be carefully tracked as they wandered into the unknown. In the comic book story, "The Last Television Broadcast On Earth!" by Bill Finger, the title's final broadcast is received from the U.N. sponsored expedition on the moon. And then there was the seldom-seen, low-budget movie, *Project Moonbase*, which has the added distinction of being the second motion picture scripted by Robert A. Heinlein. Besides predicting the space race, space stations, space shuttles, and women astronauts, this film also predicted that in 1970, the American three-member crew who reached the moon in a multi-stage rocket and reached the lunar surface in a non-aerodynamic "LEM-like" landing craft, would carry television equipment with them.

1950. The same year that the first motion picture scripted by Robert A. Heinlein, *Destination Moon*, premiered. V. T. Hamlin, in his famous comic strip, *Alley Oop*, predicted a televised Moon landing. Not only did he make this prediction too, he also foresaw some of the unpleasant consequences, such as intrusive commercials and audience boredom.

1949. Robert A. Heinlein again. This time in his original capacity. In his novel, *The Man Who Sold The Moon*, an integral part of his famous Future History Series, Mr. Harriman's moon rocket was to have carried television equipment along on the voyage, but then it was left behind at the last moment because of weight considerations.

1928. The earliest such prediction I have been able to locate is in J. Schlossel's short story, "To the Moon by Proxy." A crippled inventor, unable to make the moon trip himself, monitors his robot proxy by television.

In the light of the additional examples that I have cited above, I think I can safely say that the final nail has been hammered into the lid of the coffin!

Sincerely yours,

Scott Jarrett
Lakeland, FL

Schlossel's prediction is the amazing one. All the rest were made after television had become com-

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mercial. On the other hand, it appeared in Gernsback's "Amazing Stories" and Gernsback, a great predictor, may have had his finger in that. Now I wonder, if somewhere in his own writings Gernsback may have pictured the Moon landing being seen on television even before 1928.

—Isaac Asimov

Dear Isaac:

You are quite correct in your reply to W.A. Thomasson's letter concerning the adaptation of a published story for the "private" use of a gaming group. In copyright law, an "adaptation" is a direct copy of an original work, even though placed in a different form with substantial changes, e.g. translations, dramatizations, musical arrangements, motion picture versions, art reproductions, abridgements, condensations, or any other forms in which a work may be recast, transformed, or adapted, all as defined under the term "derivative works" by Section 101 of the Copyright Act. Section 106 of the Act gives the copyright owner the *exclusive* right to prepare such derivative works.

Adaptations are thus fully protected by copyright, and a copyright infringement, however "trivial" it may be, is entitled to statutory damages of at least $250 and attorneys' fees. And the "fair use doctrine" has no application to the rights of preparing a derivative work. "Fair use" merely permits limited copying of the original work for special purposes, e.g. criticism, comment, news reporting, teaching, scholarship, or research. It

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does not extend to permit adaptations based on the original work.

Trademarks do not protect titles, storylines, characters, etc. as suggested by Mr. Thomasson. There are situations where a title or a character can be used as a trademark, e.g. "Amazing Stories" as the trademark for a continuing publication or series of books or a periodical. Spielberg paid for the title because of its trademark value which is readily transferred to the television series.

As for the burden placed upon an author to respond to requests from gamers, I suggest they send their request in proper form, stating the self-imposed restrictions and providing two copies with a return, stamped envelope. I never heard of an author or copyright owner who didn't like to hear from an appreciative group of readers, especially those who respect copyrights and the absolute right of the owner to say "no" to derivative works.

Regards,

John H. Shurtleff
Chicago, IL

Thank you. And yet I received a letter (anonymous) scolding me for interfering with a "kid" who wants to amuse himself with my property.

—Isaac Asimov

Dear Mr. Swanwick,

At the end of your viewpoint "A User's Guide to the Postmoderns," you stated that you were sorry for neglecting several significant authors that could hold a place among the postmoderns, but were not members of the cyberpunk or humanist groups, and were not as influential as Lucius Shepard. Well, I read the viewpoint and re-read it. It interested me in several authors (of both groups) that I had not previously considered, and, in addition, brought forth the conflict between the cyberpunks and humanists, which I (being a relatively new reader) wasn't even aware of. I did know a little bit about some of the authors you listed at the end, though, or had at least read some of their stories, and my curiosity flared up. I really am interested in knowing about those authors. And there's no better way to fill in the gaps about the Philip K. Dick disciples, the new fantasy authors, the "Space Cadets," and on a separate basis, the loners, then to write another article dedicated to them. And feel free to fill in some information about yourself—you qualify as a postmodern, don't you? Thank you for reading this.

Sincerely,

Chris East
Fredonia, NY

How times have changed! In the forgotten Glacial Age when I was a young science fiction fan, I knew the work of every science fiction writer in the business. Why not? There were only about fifty and perhaps a dozen were particularly important. Nowadays there are many hundreds and every year sees a dozen or a score of new names bursting into prominence.

—Isaac Asimov

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GAMING

by Matthew J. Costello

Most role-playing games deal with a recognizable, familiar fantasy. The now-hackneyed dungeon crawling and the otherworldly space games deal with material we're pretty comfortable with, whether it's three-headed dragons or lizard-like aliens. A few games have offered visions of role playing that run a bit farther afield. West End Games' *Paranoia* has created a rather deliciously nutty future of a computer-controlled society run amuck. And Chaosium's *Call of Cthulhu* has miraculously turned old H.P. Lovecraft's bestiary of tentacled Old Ones from across the universe into sport for some intrepid investigators from the Roaring 20s. (Most of whom, by the way, end up biting the dust or going insane.) And Chaosium's *Ringworld* brought Larry Niven's exciting SF series to life.

But what game has dared to provide a world of such novel quality that it requires a whole new approach to role playing?

SkyRealms of Jorune (SkyRealms Publishing, Inc., P.O. Box 5543, Berkeley, CA 94705; $25.00) attempts to take us away from the cozy, mundane level of super heroes and powerful wizards. "Leave Your World Behind" the box cover suggests. And the game makes good on its lofty promise.

First, a word about the plot. In the year 2116, interstellar travel brought humans to a planet they called Jorune. Inhabited by thinly-framed humanoids, called Shanthas, Jorune proved to be hospitable to the earthly visitors. The Shanthas showed the creatures areas that would meet their needs, and then proceeded with their seemingly backward existence.

But a war on earth ended all that. Cut off from the support of Mother Earth, the colonists left the regions they were restricted to and started to mine the resources of Jorune.

Which led, of course, to conflict with the seemingly-powerless Shanthas.

Except the Shanthas possessed a tremendous ability. They could tap into the Isho, an ambient form of energy on the planet. With this energy, they could generate dyshas—energy orbs of a dizzying variety of shapes and purposes. With

(continued on page 178)

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FRAME OF REFERENCE

Jerry B. Oltion

A gripping novel about man's effort to reclaim the earth from alien invaders in the distant future.

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"Jerry Oltion's novel is a rich sequence of never-ending surprises. I was fascinated by the plot continually unfolding in unexpected directions, much like a series of nested Chinese boxes. If this is only his first book, I am enthusiastic to see what Oltion can bring off in future works."
—*Edward Bryant*

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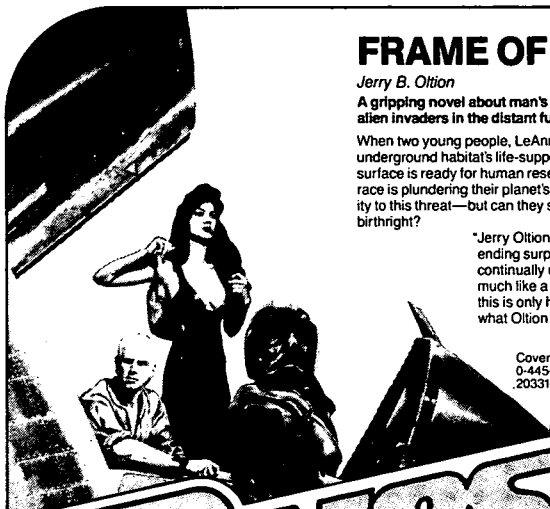

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Michael Jan Friedman

An enthralling contemporary fantasy in the best-selling tradition of Barbara Hambley

It was one of those days for Barbara St. James, an overworked, underpaid teacher who feels past her prime—she's still single. To top it all off, she's about to be mugged not far from her New York City apartment. Then a strange young man named Harlick comes to her rescue...a young man who just happens to be an elf. Thus begin Barbara's fantastic adventures...leading to a romance that transcends the boundaries of both earth and the magical realm of Alfheim.

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Photo by Sylvia Rucker

MIT Laboratory of Computer Science

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VIEWPOINT

CELLULAR AUTOMATA

by Rudy Rucker

Over the course of Rudy Rucker's distinguised career, he has been a mathematician, a university professor, and a full-time writer. He tells us that he has just embarked on a new vocation in California as a teacher of computer science. Mr. Rucker's *Mind Tools,* a popular book about information, is due out from Houghton Mifflin in the spring. His Philip K. Dick Award novel, *Software,* will be reissued by Avon Books sometime this year, and he recently completed a sequel, *Wetware.* In addition, Mr. Rucker has edited an anthology of stories of mathematic wonder entitled *Mathenauts.* The author's last story for *IAsfm,* "Bringing in the Sheaves," appeared in our January 1987 issue.

We've been talking all afternoon, and Stephen Wolfram is tired. On the computer screen in front of us, patterns are forming. We are watching the time-evolutions of various one-dimensional cellular automata. Some of the patterns are predictable as wallpaper, some

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are confusingly random, but just now there is one that strikes a pleasing balance between order and chaos. It's shaped like a pyramid, with red and blue down the sides, and with a symmetrical yellow pattern in the middle—a pattern vaguely like an Indian goddess.

"What's the number on that one?" asks Wolfram.

"398312," answers Norman Packard, Wolfram's associate at the Institute for Advanced Study in Princeton.

"This is the way to do scientific research," I remark. "Sit and watch patterns, and write down the numbers of the ones you like."

"Oh, *this* isn't for science," says Wolfram. "This is for art. Usually I just talk to scientists and businessmen, and now I'm trying to meet some artists. Wouldn't that last one make a good poster?"

A few days later and I'm with Charles Bennett, an IBM information-theorist visiting Boston University. Bennett has a TV coupled to a computer and two naked boards full of circuits and chips. One of the boards has two tiny green lights sticking up like eyes. The board with the lights, explains Bennett, serves as a source of random zeroes and ones.

"Watch this," says Bennett. "The Game of Life starting from a primordial soup of bits. It's a rudimentary model of evolution."

He fiddles with his machine and the TV screen lights up with a color flea-circus: this is the "soup." And then, as the Game of Life's transformation rules take over, the dots are racing around, clumping into things like worms. The worms crawl around the screen, colliding and eating each other, casting off bits of stable debris.

"That's a glider gun," says Bennett, pointing to a twinkling little dot-creature. A steady stream of smaller dot-patterns is pulsing out from the glider gun. "We've got sixty-five thousand pixels on this screen with sixty updates per second."

Bennett shows me another pattern, one that looks like boiling red cottage cheese (see figure 1), and then he takes me across the Charles River to the MIT Laboratory of Computer

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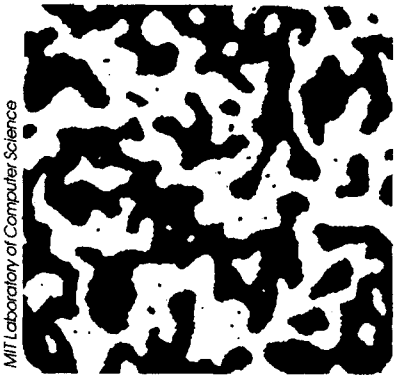

MIT Laboratory of Computer Science

Figure 1

Science. In the basement is an exuberant French scientist named Gerard Vichniac. He and an associate are watching a small rectangular dot-pattern in the center of their terminal's screen. The pattern is mostly white, with a small amount of red in it. The edges keep folding in on each other as the pattern evolves according to some simple rule which Vichniac made up. He calls it an "Ising Model," but it looks like an electronic kaleidoscope.

"This pattern started as a red square," Vichniac tells me. "The rule is reversible, so we know that eventually the red square must come back. We've been watching it for eighty thousand steps now."

Upstairs from Vichniac are two equally cheerful cellular automata specialists, Norman Margolus and Tommaso Toffoli. There's another journalist there, a guy from *Rolling Stone*. Cellular automata are hot. I introduce myself and sit down to watch the demonstration. Right now there's a central cloud of dots, with square little patterns flying out of it. On the sides of each of the square patterns are individual pixels that pump up and down.

"Look at the critters, Tom," says Margolus. "They look like oarsmen, don't they?"

"Show him the square rock," says Toffoli.

Margolus clears the screen and keys a big red square into the center. The square expands out to the edges of the screen and bounces back. As the bouncing continues, the patterns interfere and form complex checkerboard patterns, enough patterns in thirty seconds to have made a respectable one-man Op-Art Show in the 1960s.

Toffoli pries Margolus away from the controls and takes over.

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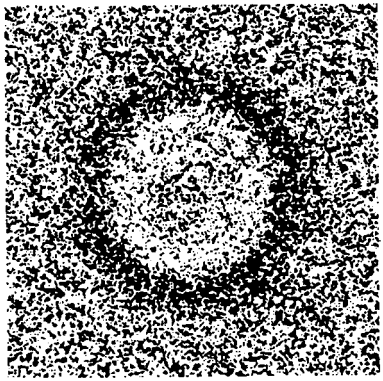
VIEWPOINT



MIT Laboratory of Computer Science

Figure 2

"Now we do the square rock in the toroidal pond again, but this time we add a heat-bath, a cloud of random gas in the background."

The background fills with darting dots, and Toffoli keys another big red square into the center. This time the waves are smooth and roughly circular, much like real waves in a real pond (see figure 2). We try it with two squares and get interference patterns. Toffoli is pleased. He says that this shows how simple physics really is.

What is going on?

For the past fifty years, scientists thought of computers in terms of a *series* of computations, to be carried out successively. The idealized model for such computers was the Turing machine: a device which moves back and forth along a long strip of paper making marks. Alan Turing formulated this idealized notion of a serial computer only after a number of digital computers had actually been built. Turing's model led John Von Neumann to the key insight that got the computer revolution off the ground: *a computer program should contain computing instructions as well as data.*

One of the main changes expected from the much ballyhooed "fifth generation" of computers is that computers are going to begin doing computations in *parallel*. A few such parallel computers exist, such as NASA's seven million dollar Massively Parallel Processor at the Goddard Space Flight Center. But these computers have yet to realize their full potential. The problem is that there is still no simple model of parallel computation; and there is still no good theory of how to program a parallel

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computer.

Cellular automata, CAs for short, may provide the necessary new mind tool for thinking about parallel computation. What is a cellular automaton? Imagine a large plane divided up into square "cells." The individual cells function as small, independent computers. With each tick of the clock, each cell looks at its neighbors and decides whether to display, let us say, a zero or a one. Take a handful of ones and throw them down onto this plane like seeds, and the pattern of ones will evolve in unpredictable ways.

The beauty of CAs is that, although each cell is programmed in the same simple way, the combined effect of the many parallel computations can produce, in just a few seconds, patterns that a large serial computer might take days to come up with. For tasks such as simulating aerodynamic turbulence, a thousand-dollar CA board can outperform a multimillion dollar serial computer such as the hundred megaflop (one hundred million operations per second) CRAY-1. The output of a CA is so hard to predict that we may have to totally rethink our concept of programming. It may be that the best way to "program" a parallel computer is empirical: try out several million randomly chosen cell-programs and select the one that seems to work best.

The notion of a cellular automaton was first investigated by Stanislaw Ulam and John Von Neumann in the early 1950s. Von Neumann was interested in the notion of a machine that can reproduce itself. Before Von Neumann's work, such a notion had seemed ludicrous, even blasphemous. Our industrial machines produce things much simpler than themselves, and many people had thought that some mysterious extra-scientific force is involved in true self-reproduction. But Von Neumann was able to show that it *is* possible to have robots that build factories to produce new robots just like themselves. Ulam, coinventor of the hydrogen bomb, showed Von Neumann how to simplify his argument by thinking of the robots as CAs—as patterns, that is, on a large grid

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of square cells.

One of the next early investigators of CAs was Edward Fredkin, who in the 1960s formulated a concept of "information mechanics" in analogy to quantum mechanics. Starting from the basic premise that *the world is made of information,* Fredkin proposed modeling the entire physical world as very large cellular automaton. The world, according to Fredkin's Leibnizian vision, consists of tiny three-dimensional monads that update their states some decillion times a second. Fredkin now lives on the tropical Mosquito Island, which he owns. One of the occupational options of being a top computer-scientist is becoming a multimillionaire. Many CA conferences are held on Fredkin's island, which is said to have one of the best restaurants in the Caribbean.

The first CA to attract widespread public attention was John Horton Conway's Game of Life, popularized by Martin Gardner's "Mathematical Games" column in the early 1970s. You start with a grid of square cells; including diagonals, each cell has eight neighbors. You put dots in some of the cells. These occupied cells are thought of as "living," and the vacant cells are thought of as "dead." Now the following rule is simultaneously applied to each cell: If a vacant cell has exactly three living neighbors, then these neighbors "reproduce" and the vacant cell becomes occupied. If a living cell has two or three living neighbors, then it is happy and stays alive. If a living cell has less than two living neighbors, then it dies of loneliness; and if a living cell has more than three living neighbors, then it dies of overcrowding. (See figure 3.)

One can evolve Life patterns by hand on graph-paper or on a Go board; but it is immensely easier to run Life on a computer. A number of software companies now offer diskettes with Life programs. Before the advent of personal computers, hackers often ran Life surreptitiously on the mainframe computers they were supposed to be slave-driving. In 1974, *Time* magazine chided that, "millions of dollars in valuable computer time may have already been wasted by the game's

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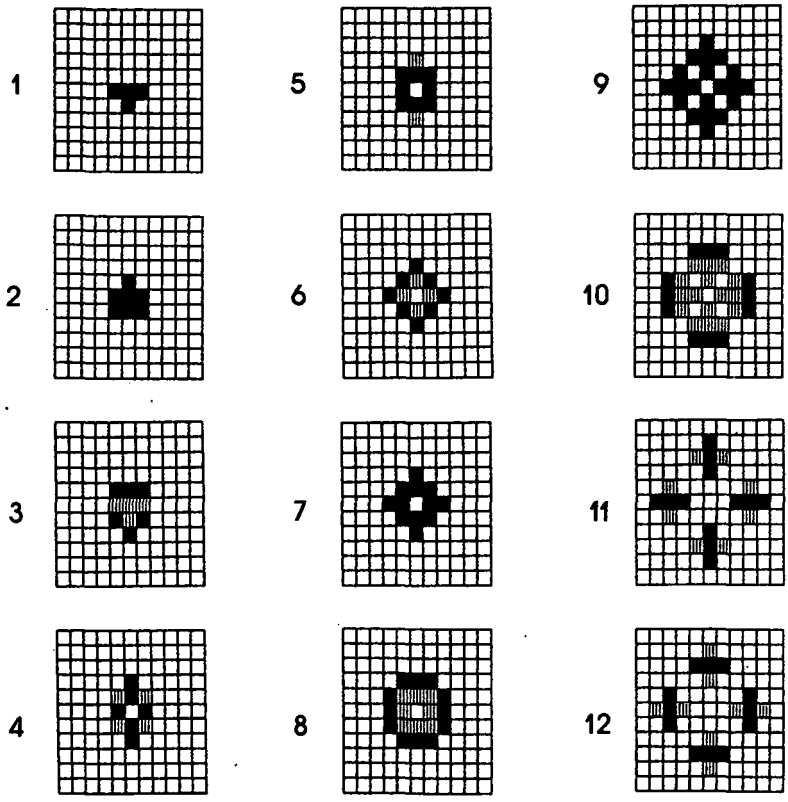

Figure 3

Obeying the growth rules of "life," a T-shaped pattern of four cells evolves to produce four "blinkers" that will continue to alternate indefinitely between the final two states illustrated. Solid black squares represent living cells; white areas are "dead"; shaded squares are cells that were alive in the previous iteration but are now dying.

Charles Platt

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growing horde of fanatics." A carry-over of this attitude can be found in the somewhat startling fact that no CA programs have ever been run on NASA's huge, expensive parallel processor.

As occasionally happens, yesterday's toy is today's dynamo. An initial breakthrough came in the early 1980s when Conway was able to mimic Von Neumann's result about self-replication. There are (large) Life patterns that reproduce themselves. This result is a corollary to an even more significant fact: the Game of Life is a *universal computer*.

A process is said to be a universal computer if it can, given the proper input, simulate any kind of computing process. All digital computers are universal; given enough memory and time, any computer can run a program that will imitate the behavior of any other computer. One of the simplest universal computers is the Turing machine, but the rules for Life are even simpler, and it was a bit of a surprise to learn that the Game of Life is a universal computer. This means, for instance, that if we start with a very large and properly selected pattern of dots, the rules of Life will began producing stable dot-patterns that spell out the decimal expansion of pi!

The best-known CA worker is Stephen Wolfram, aged twenty-four. Wolfram was born in Oxford, and is said to have left home at the age of twelve. As a teenager, he published a number of papers on particle physics. He obtained his Ph.D. in physics from Cal Tech in 1980, won the MacArthur prize in 1981, and joined the Institute for Advanced Study in Princeton in 1982. And then, in the process of trying to find a model for the way in which galaxies form out of the universe's initially chaotic state, Wolfram became interested in cellular automata.

Stocky, tousled, and seeming a bit older than his years, Wolfram speaks with the directness of a man who knows what he is doing. "Computer scientists had done some fairly worthless clean-up work on Ulam and Von Neumann's work. There were maybe a hundred papers. What I found outrageous was that none of the papers had any pictures."

Wolfram's papers all have

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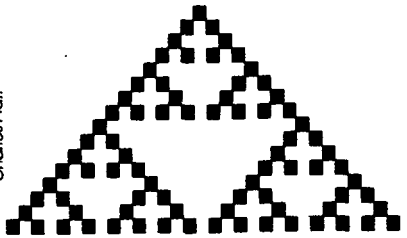
pictures, lots of pictures, usually pictures of one-dimensional cellular automata evolving in time. A CA such as the "Game of Life" is two-dimensional: it is set up as a pattern of squares on a plane. But one can equally well talk of one-dimensional CAs; these are set up as a pattern of squares in a line. It requires something like a movie, or a TV screen, to show the way in which a two-dimensional CA pattern changes over time. But the time evolution of a one-dimensional CA can be shown very simply: you just put each successive line-picture below the one before, generating a kind of space-time diagram.

One of the simplest one-dimensional CAs is set up as



Charles Platt

Figure 4

follows. Take an endless line of square cells, and say that each cell can be blank or shaded. Start with only one cell shaded. Now at each new step, shade in any cell that has exactly one shaded neighbor; and blank out all other cells. This rule leads to a so-called "fractal" pattern, a pattern that repeats itself over and over at ever larger scales (see figure 4).

More complicated one-dimensional CA rules can be formulated. A cell can look further than its nearest two neighbors; it can look, say, at its nearest four or seven or ten neighbors. And instead of simply choosing whether to have a cell shaded, we can set up a palette of possible colors to shade it in. Wolfram's colleague Packard likes his CAs to have two-hundred and fifty-six shadings per site. But no matter what, a CA rule can be expressed by a very short string of digits. It is not very hard to program a computer to choose numbers at random, and to interpret the numbers as CA rules, and to display the patterns that the rules create.

Wolfram recalls his initial investigations into one-dimensional CAs as "botanical."

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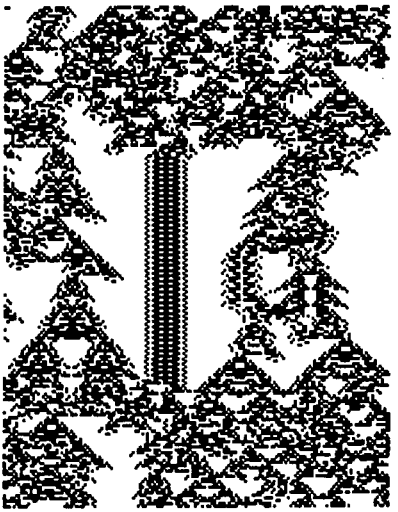
VIEWPOINT



MIT Laboratory of Computer Science

Figure 5

He watched thousands and thousands of them on his computer until he got a feeling for what kinds of possibilities there were. He now feels that a number of very simple one-dimensional CAs can serve as universal computers. In Wolfram's words, "It is possible to make things of great complexity out of things that are very simple. There is no conservation of simplicity." (See figure 5.)

One application of CAs is to the little-understood phenomenon of turbulence. "If we had a better understanding of how complex systems work, we could use them in engineering applications," remarks Wolfram, and goes on to tell a story, apparently well-known among engineers, about the design of the DC-10 airplane. "The wing of a DC-10 is held on by a single steel bar. Two or three steel bars would probably be better, but for more than one bar the mathematics becomes too complicated for a simulation to be carried out. The weakness of our mathematics forces us to adopt the simplest possible design."

I ask him what engineers think of his method of modeling turbulence with CAs. "Some say it's wrong, and some say it's trivial. If you can get people to say both these things, you're in quite good shape."

Up at Boston University, Charles Bennett and the Hungarian computer-scientist Peter Gacs are using two-dimensional cellular automata to model biological notions. Unlike a solid-state computer, a human brain is filled with random noise. How is it that we manage to remember things, and to think logically, when all of our mental

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patterns are constantly being bombarded by extraneous stimuli? Bennett and Gacs tell me they have found a CA model for the process, and they show me the screenful of boiling red cottage cheese. Despite the boiling, the cheese stays mostly red: *this* is the persistence of memory. Gacs says something very interesting about the device that produces the display.

"With the cellular automaton simulator, we can see many very alien scenes. We have a new world to look at, and it may tell us a lot about our world. It is like looking first into a microscope."

Computer science is still so new that many of the people at the cutting edge have come from other fields. Though Toffoli holds degrees in physics and computer science, Bennett's Ph.D. is in physical chemistry, and Margolus is a twenty-nine year old graduate student in physics. He hasn't been able to get around to finishing his degree because he is so busy inventing things. His and Toffoli's newest project is the CAM, for Cellular Automata Machine.

A San Francisco company called System Concepts is marketing the CAM for fifteen hundred dollars. What buyers get for their money is a software diskette and a printed-circuit board that plugs into the slot of an IBM-PC. After watching the CAM in operation at Margolus's office, I am sure that the thing will eventually be a hit. Laboratories will buy it, then individual scientists, then restaurants and offices, and finally those individuals who like to look at strange things.

Unlike Wolfram's static spacetime pictures of one-dimensional CAs, the CAM displays dynamic time-evolutions of two-dimensional CA patterns. There is an effectively infinite range of CA rules to choose from; and there is a correspondingly wide range of possible visual effects. Just as the Moog synthesizer changed the sound of music, the CAM will almost certainly change the look of video.

I tell this to Toffoli and Margolus, and they look unconcerned. What they care most deeply about is science, about Ed Fredkin's vision of explaining the world in terms of cellular automata and

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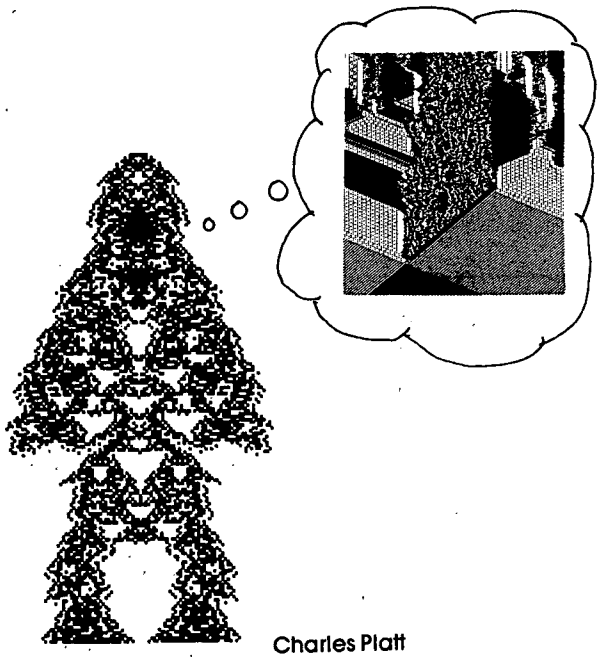
information mechanics. Margolus talks about computer hackers, and how a successful program is called "a good hack." As the unbelievably bizarre CAM images flash by on his screen, Margolus leans back in his chair and smiles slyly. And then he tells me his conception of the world we live in. "The universe is a good hack."●

Figure 6



Charles Platt

MIT Laboratory of Computer Science

Computer programs that create cellular patterns such as those illustrating this article are available for owners of IBM PC, PCjr, PC-XT, PC-AT, and compatible personal computers. For information and samples, send a self-addressed stamped envelope to Cell Systems, 594 Broadway (Room 1208), New York, NY 10012.

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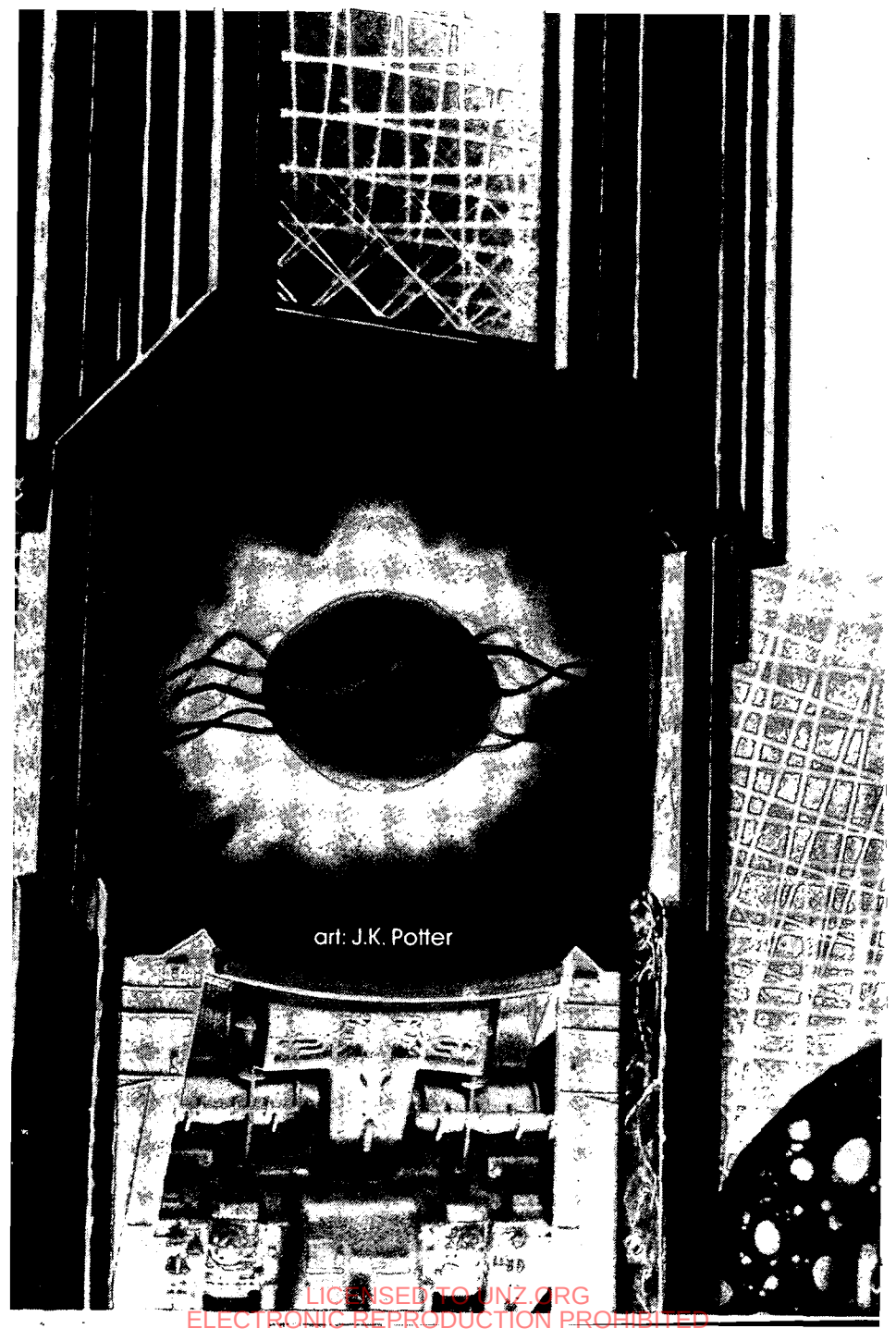

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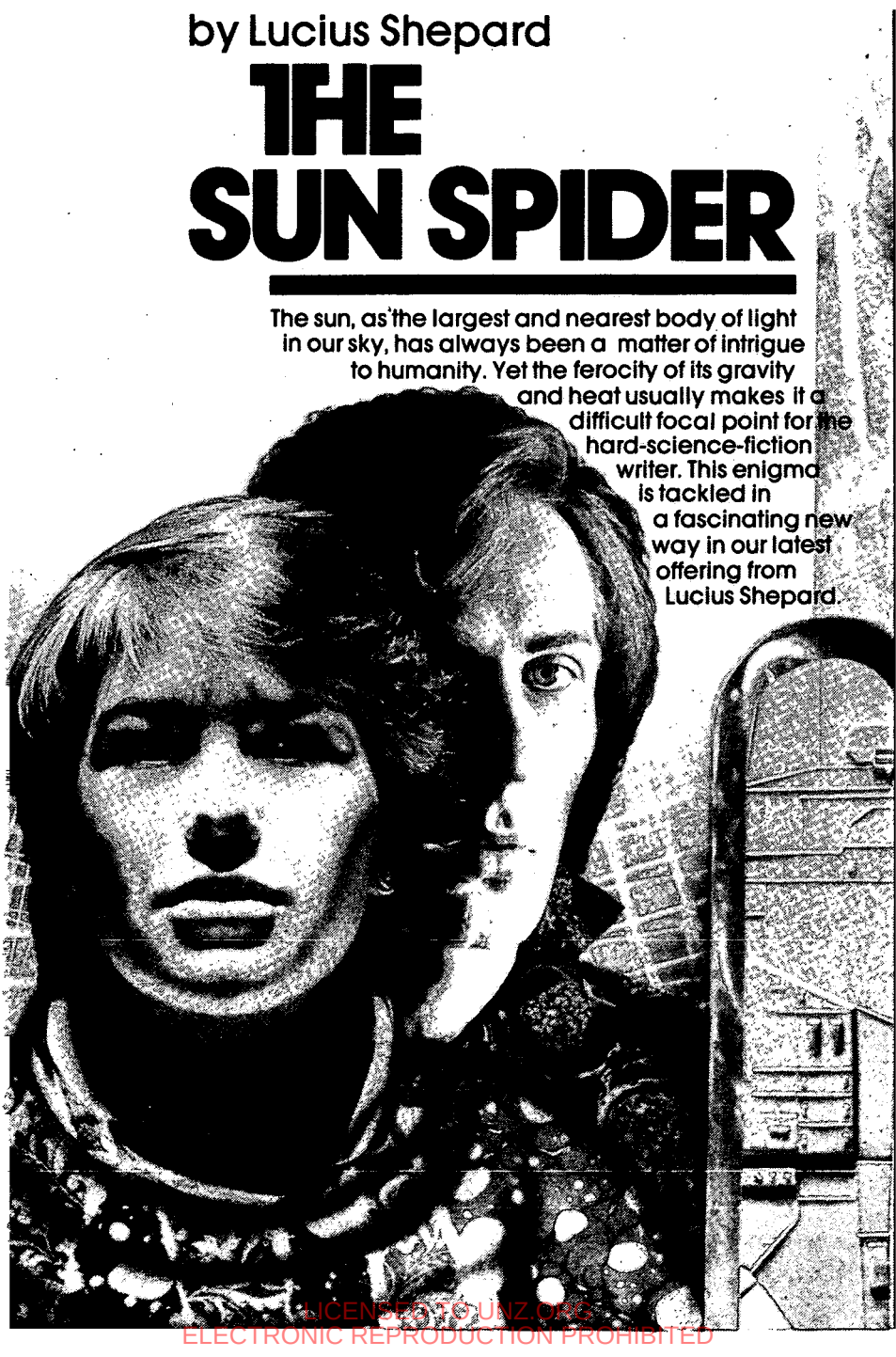
by Lucius Shepard

THE SUN SPIDER

The sun, as the largest and nearest body of light in our sky, has always been a matter of intrigue to humanity. Yet the ferocity of its gravity and heat usually makes it a difficult focal point for the hard-science-fiction writer. This enigma is tackled in a fascinating new way in our latest offering from Lucius Shepard.



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". . . In Africa's Namib Desert, one of the most hostile environments on the face of the earth, lives a creature known as the sun spider. Its body is furred pale gold, the exact color of the sand beneath which it burrows in search of its prey, disturbing scarcely a grain in its passage. It emerges from hiding only to snatch its prey, and were you to look directly at it from an inch away, you might never notice its presence. Nature is an efficient process, tending to repeat elegant solutions to the problem of survival in such terrible places. Thus, if—as I posit—particulate life exists upon the Sun, I would not be startled to learn it has adopted a similar form."

from *Alchemical Diaries*
by Reynolds Dulambre

1
Carolyn

My husband Reynolds and I arrived on Helios Station following four years in the Namib, where he had delivered himself of the *Diaries,* including the controversial Solar Equations, and where I had become adept in the uses of boredom. We were met at the docking arm by the administrator of the Physics Section, Dr. Davis Brent, who escorted us to a reception given in Reynolds' honor, held in one of the pleasure domes that blistered the skin of the station. Even had I been unaware that Brent was one of Reynolds' chief detractors, I would have known the two of them for adversaries: in manner and physicality, they were total opposites, like cobra and mongoose. Brent was pudgy, of medium stature, with a receding hairline, and dressed in a drab standard-issue jumpsuit. Reynolds—at thirty-seven, only two years younger—might have been ten years his junior. He was tall and lean, with chestnut hair that fell to the shoulders of his cape, and possessed of that craggy nobility of feature one associates with a Shakespearean lead. Both were on their best behavior, but they could barely manage civility, and so it was quite a relief when we reached the dome and were swept away into a crowd of admiring techs and scientists.

Helios Station orbited the south pole of the Sun, and through the ports I had a view of a docking arm to which several of the boxy ships that journeyed into the coronosphere were moored. Leaving Reynolds to be lionized, I lounged beside one of the ports and gazed toward Earth, pretending I was celebrating Nation Day in Abidjan rather than enduring this gathering of particle pushers and inductive reasoners, most of whom were gawking at Reynolds, perhaps hoping he would live up to his reputation and perform a drugged collapse or start a fight. I watched him

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and Brent talking. Brent's body language was toadying, subservient, like that of a dog trying to curry favor; he would clasp his hands and tip his head to the side when making some point, as if begging his master not to strike him. Reynolds stood motionless, arms folded across his chest.

At one point Brent said, "I can't see what purpose you hope to achieve in beaming protons into coronal holes," and Reynolds, in his most supercilious tone, responded by saying that he was merely poking about in the weeds with a long stick.

I was unable to hear the next exchange, but then I did hear Brent say, "That may be, but I don't think you understand the openness of our community. The barriers you've erected around your research go against the spirit, the . . ."

"All my goddamned life," Reynolds cut in, broadcasting in a stagey baritone, "I've been harassed by little men. Men who've carved out some cozy academic niche by footnoting my work and then decrying it. Mousey little bastards like you. And that's why I maintain my privacy . . . to keep the mice from nesting in my papers."

He strode off toward the refreshment table, leaving Brent smiling at everyone, trying to show that he had not been affected by the insult. A slim brunette attached herself to Reynolds, engaging him in conversation. He illustrated his points with florid gestures, leaning over her, looking as if he were about to enfold her in his cape, and not long afterward they made a discreet exit.

Compared to Reynolds' usual public behavior, this was a fairly restrained display, but sufficient to make the gathering forget my presence. I sipped a drink, listening to the chatter, feeling no sense of betrayal. I was used to Reynolds' infidelities, and, indeed, I had come to thrive on them. I was grateful he had found his brunette. Though our marriage was not devoid of the sensual, most of our encounters were ritual in nature, and after four years of isolation in the desert, I needed the emotional sustenance of a lover. Helios would, I believed, provide an ample supply.

Shortly after Reynolds had gone, Brent came over to the port, and to my amazement, he attempted to pick me up. It was one of the most inept seductions to which I have ever been subject. He contrived to touch me time and again as if by accident, and complimented me several times on the largeness of my eyes. I managed to turn the conversation into harmless channels, and he got off into politics, a topic on which he considered himself expert.

"My essential political philosophy," he said, "derives from a story by one of the masters of twentieth century speculative fiction. In the story, a man sends his mind into the future and finds himself in a utopian

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setting, a greensward surrounded by white buildings, with handsome men and beautiful women strolling everywhere . . ."

I cannot recall how long I listened to him, to what soon became apparent as a ludicrous Libertarian fantasy, before bursting into laughter. Brent looked confused by my reaction, but then masked confusion by joining in my laughter. "Ah, Carolyn," he said. "I had you going there, didn't I? You thought I was serious!"

I took pity on him. He was only a sad little man with an inflated self-opinion; and, too, I had been told that he was in danger of losing his administrative post. I spent the best part of an hour in making him feel important; then, scraping him off, I went in search of a more suitable companion.

My first lover on Helios Station, a young particle physicist named Thom, proved overweening in his affections. The sound of my name seemed to transport him; often he would lift his head and say, "Carolyn, Carolyn," as if by doing this he might capture my essence. I found him absurd, but I was starved for attention, and though I could not reciprocate in kind, I was delighted in being the object of his single-mindedness. We would meet each day in one of the pleasure domes, dance to drift, and drink paradisiacs—I developed quite a fondness for Amouristes—and then retire to a private chamber, there to make love and watch the sunships return from their fiery journeys. It was Thom's dream to be assigned someday to a sunship, and he would rhapsodize on the glories attendant upon swooping down through layers of burning gasses. His fixation with the scientific adventure eventually caused me to break off the affair. Years of exposure to Reynolds' work had armored me against any good opinion of science, and further I did not want to be reminded of my proximity to the Sun: sometimes I imagined I could hear it hissing, roaring, and feel its flames tonguing the metal walls, preparing to do us to a crisp with a single lick.

By detailing my infidelity, I am not trying to characterize my marriage as loveless. I loved Reynolds, though my affections had waned somewhat. And he loved me in his own way. Prior to our wedding, he had announced that he intended our union to be "a marriage of souls." But this was no passionate outcry, rather a statement of scientific intent. He believed in souls, believed they were the absolute expression of a life, a quality that pervaded every particle of matter and gave rise to the lesser expressions of personality and physicality. His search for particulate life upon the Sun was essentially an attempt to isolate and communicate with the anima, and the "marriage of souls" was for him the logical goal of twenty-first century physics. It occurs to me now that this search may have been his sole means of voicing his deepest emotions, and it was our core prob-

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lem that I thought he would someday love me in a way that would satisfy me, whereas he felt my satisfaction could be guaranteed by the application of scientific method.

To further define our relationship, I should mention that he once wrote me that the "impassive, vaguely oriental beauty" of my face reminded him of "those serene countenances used to depict the solar disc on ancient sailing charts." Again, this was not the imagery of passion: he considered this likeness a talisman, a lucky charm. He was a magical thinker, perceiving himself as more akin to the alchemists than to his peers, and like the alchemists, he gave credence to the power of similarities. Whenever he made love to me, he was therefore making love to the Sun. To the great detriment of our marraige, every beautiful woman became for him the Sun, and thus a potential tool for use in his rituals. Given his enormous ego, it would have been out of character for him to have been faithful, and had he not utilized sex as a concentrative ritual, I am certain he would have invented another excuse for infidelity. And, I suppose, I would have had to contrive some other justification for my own.

During those first months I was indiscriminate in my choice of lovers, entering into affairs with both techs and a number of Reynolds' colleagues. Reynolds himself was no more discriminating, and our lives took separate paths. Rarely did I spend a night in our apartment, and I paid no attention whatsoever to Reynolds' work. But then one afternoon as I lay with my latest lover in the private chamber of a pleasure dome, the door slid open and in walked Reynolds. My lover—a tech whose name eludes me—leaped up and began struggling into his clothes, apologizing all the while. I shouted at Reynolds, railed at him. What right did he have to humiliate me this way? I had never burst in on him and his whores, had I? Imperturbable, he stated at me, and after the tech had scurried out, he continued to stare, letting me exhaust my anger. At last, breathless, I sat glaring at him, still angry, yet also feeling a measure of guilt . . . not relating to my affair, but to the fact that I had become pregnant as a result of my last encounter with Reynolds. We had tried for years to have a child, and despite knowing how important a child would be to him, I had put off the announcement. I was no longer confident of his capacity for fatherhood.

"I'm sorry about this." He waved at the bed. "It was urgent I see you, and I didn't think."

The apology was uncharacteristic, and my surprise at it drained away the dregs of anger. "What is it?" I asked.

Contrary emotions played over his face. "I've got him," he said.

I knew what he was referring to: he always personified the object of his search, although before too long he began calling it "the Spider." I

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was happy for his success, but for some reason it had made me a little afraid, and I was at a loss for words.

"Do you want to see him?" He sat beside me. "He's imaged in one of the tanks."

I nodded.

I was sure he was going to embrace me. I could see in his face the desire to break down the barriers we had erected, and I imagined now his work was done, we would be as close as we had once hoped, that honesty and love would finally have their day. But the moment passed, and his face hardened. He stood and paced the length of the chamber. Then he whirled around, hammered a fist into his palm, and with all the passion he had been unable to direct toward me, he said, "I've got him!"

"I had been watching him for over a week without knowing it: a large low-temperature area shifting about in a coronal hole. It was only by chance that I recognized him; I inadvertantly nudged the color controls of a holo tank, and brought part of the low-temperature area into focus, revealing a many-armed ovoid of constantly changing primary hues, the arms attenuating and vanishing: I have observed some of these arms reach ten thousand miles in length, and I have no idea what limits apply to their size. He consists essentially of an inner complex of ultracold neutrons enclosed by an intense magnetic field. Lately it has occurred to me that certain of the coronal holes may be no more than the attitude of his movements. Aside from these few facts and guesses, he remains a mystery, and I have begun to suspect that no matter how many elements of his nature are disclosed, he will always remain so."

from *Collected Notes*
by Reynolds Dulambre

2
Reynolds

Brent's face faded in on the screen, his features composed into one of those fawning smiles. "Ah, Reynolds," he said. "Glad I caught you."

"I'm busy," I snapped, reaching for the off switch.

"Reynolds!"

His desperate tone caught my attention.

"I need to talk to you," he said. "A matter of some importance."

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I gave an amused sniff. "I doubt that."

"Oh, but it is . . . to both of us."

An oily note had crept into his voice, and I lost patience. "I'm going to switch off, Brent. Do you want to say goodbye, or should I just cut you off in mid-sentence?"

"I'm warning you, Reynolds!"

"Warning me? I'm all aflutter, Brent. Are you planning to assault me?"

His face grew flushed. "I'm sick of your arrogance!" he shouted. "Who the hell are you to talk down to me? At least I'm productive . . . you haven't done any work for weeks!"

I started to ask how he knew that, but then realized he could have monitored my energy usage via the station computers.

"You think . . ." he began, but at that point I did cut him off and turned back to the image of the Spider floating in the holo tank, its arms weaving a slow dance. I had never believed he was more than dreams, vague magical images, the grandfather wizard trapped in flame, in golden light, in the heart of power. I'd hoped, I'd wanted to believe. But I hadn't been able to accept his reality until I came to Helios, and the dreams grew stronger. Even now I wondered if belief was merely an extension of madness. I have never doubted the efficacy of madness: it is my constant, my referent in chaos.

The first dream had come when I was . . . what? Eleven, twelve? No older. My father had been chasing me, and I had sought refuge in a cave of golden light, a mist of pulsing, shifting light that contained a voice I could not quite hear: it was too vast to hear. I was merely a word upon its tongue, and there had been other words aligned around me, words I needed to understand or else I would be cast out from the light. The Solar Equations—which seemed to have been visited upon me rather than a product of reason—embodied the shiftings, the mysterious principles I had sensed in the golden light, hinted at the arcane processes, the potential for union and dissolution that I had apprehended in every dream. Each time I looked at them, I felt tremors in my flesh, my spirit, as if signaling the onset of a profound change, and . . .

The beeper sounded again, doubtless another call from Brent, and I ignored it. I turned to the readout from the particle traps monitored by the station computers. When I had discovered that the proton bursts being emitted from the Spider's coronal hole were patterned—coded, I'm tempted to say—I had been elated, especially considering that a study of these bursts inspired me to create several addenda to the Equations. They had still been fragmentary, however, and I'd had the notion that I would have to get closer to the Spider in order to complete them . . . perhaps join one of the flights into the coronosphere. My next reaction had been fear. I had realized it was possible the Spider's control

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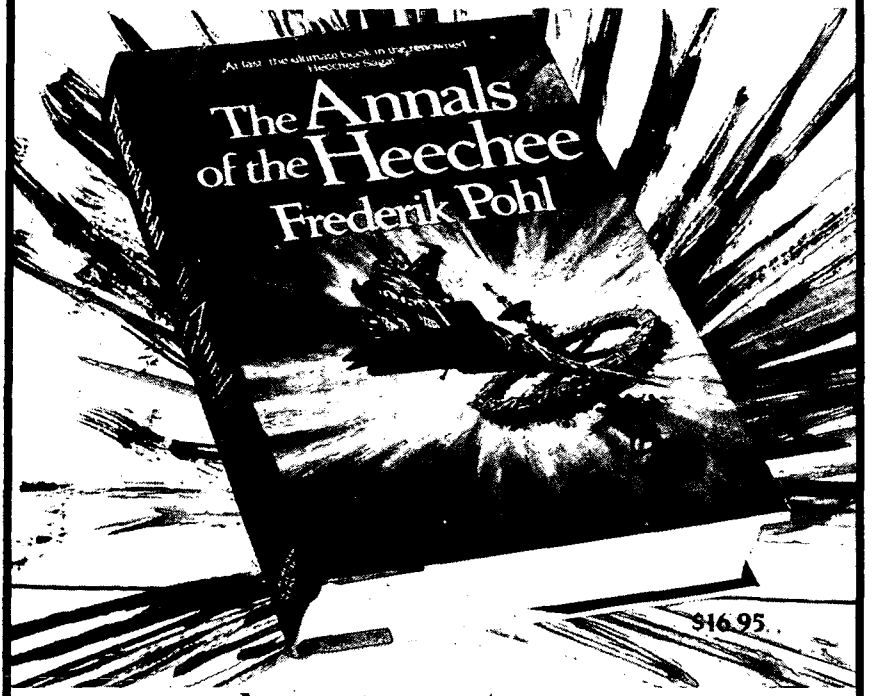

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was such that these bursts were living artifacts, structural components that maintained a tenuous connection with the rest of his body. If so, then the computers, the entire station, might be under his scrutiny . . . if not his control. Efforts to prove the truth of this had proved inconclusive, but this inconclusiveness was in itself an affirmative answer: the computers were not capable of evasion, and it had been obvious that evasiveness was at work here.

The beeper broke off, and I began to ask myself questions. I had been laboring under the assumption that the Spider had in some way summoned me, but now an alternate scenario presented itself. Could I have stirred him to life? I had beamed protons into the coronal holes, hadn't I? Could I have educated some dumb thing . . . or perhaps brought him to life? Were all my dreams a delusionary system of unparalleled complexity and influence, or was I merely a madman who happened to be right?

These considerations might have seemed irrelevant to my colleagues, but when I related them to my urge to approach the Spider more closely, they took on extreme personal importance. How could I trust such an urge? I stared at the Spider, at its arms waving in their thousand-mile-long dance, their slow changes in configuration redolent of Kali's dance, of myths even more obscure. There were no remedies left for my fear. I had stopped work, drugged myself to prevent dreams, and yet I could do nothing to remove my chief concern: that the Spider would use its control over the computers (if, indeed, it did control them) to manipulate me.

I turned off the holo tank and headed out into the corridor, thinking I would have a few drinks. I hadn't gone fifty feet when Brent accosted me; I brushed past him, but he fell into step beside me. He exuded a false heartiness that was even more grating than his usual obsequiousness.

"Production," he said. "That's our keynote here, Reynolds."

I glowered at him.

"We can't afford to have dead wood lying around," he went on. "Now if you're having a problem, perhaps you need a fresh eye. I'd be glad to take a look . . ."

I gave him a push, sending him wobbling, but it didn't dent his mood.

"Even the best of us run up against stone walls," he said. "And in your case, well, how long has it been since your last major work. Eight years? Ten? You can only ride the wind of your youthful successes for so . . ."

My anxiety flared into rage. I drove my fist into his stomach, and he dropped, gasping like a fish out of water. I was about to kick him, when I was grabbed from behind by the black-clad arms of a security guard. Two more guards intervened as I wrenched free, cursing at Brent. One of the guards helped Brent up and asked what should be done with me.

"Let him go," he said, rubbing his gut. "The man's not responsible."

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I lunged at him, but was shoved back. "Bastard!" I shouted. "You smarmy little shit, I'll swear I'll kill you if . . ."

A guard gave me another shove.

"Please, Reynolds," Brent said in a placating tone. "Don't worry . . . I'll make sure you receive due credit."

I had no idea what he meant, and was too angry to wonder at it. I launched more insults as the guards escorted him away.

No longer in the mood for a public place, I returned to the apartment and sat scribbling meaningless notes, gazing at an image of the Spider that played across one entire wall. I was so distracted that I didn't notice Carolyn had entered until she was standing close beside me. The Spider's colors flickered across her, making her into an incandescent silhouette.

"What are you doing?" she asked, sitting on the floor.

"Nothing." I tossed my notepad aside.

"Something's wrong."

"Not at all . . . I'm just tired."

She regarded me expressionlessly. "It's the Spider, isn't it?"

I told her that, Yes, the work was giving me trouble, but it wasn't serious. I'm not sure if I wanted her as much as it seemed I did, or if I was using sex to ward off more questions. Whatever the case, I lowered myself beside her, kissed her, touched her breasts, and soon we were in that heated secret place where—I thought—not even the Spider's eyes could pry. I told her I loved her in that rushed breathless way that is less an intimate disclosure than a form of gasping, of shaping breath to accommodate movement. That was the only way I have ever been able to tell her the best of my feeling, and it was because I was shamed by this that we did not make love more often.

Afterward I could see she wanted to say something important: it was working in her face. But I didn't want to hear it, to be trapped into some new level of intimacy. I turned from her, marshalling words that would signal my need for privacy, and my eyes fell on the wall where the image of the Spider still danced . . . danced in a way I had never before witnessed. His colors were shifting through a spectrum of reds and violets, and his arms writhed in a rhythm that brought to mind the rhythms of sex, the slow beginning, the furious rush to completion, as if he had been watching us and was now mimicking the act.

Carolyn spoke my name, but I was transfixed by the sight and could not answer. She drew in a sharp breath, and seconds later I heard her cross the room and make her exit. The Spider ceased his dance, lapsing into one of his normal patterns. I scrambled up, went to the controls and flicked the display switch to off. But the image did not fade. Instead, the Spider's colors grew brighter, washing from fiery red to gold and at last to a white so brilliant, I had to shield my eyes. I could almost feel his

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heat on my skin, hear the sibilant kiss of his molten voice. I was certain he was in the room, I knew I was going to burn, to be swallowed in that singing heat, and I cried out for Carolyn, not wanting to leave unsaid all those things I had withheld from her. Then my fear reached such proportions that I collapsed and sank into a dream, not a nightmare as one might expect, but a dream of an immense city, where I experienced a multitude of adventures and met with a serene fate.

". . . To understand Dulambre, his relationship with his father must be examined closely. Alex Dulambre was a musician and poet, regarded to be one of the progenitors of drift: a popular dance form involving the use of improvised lyrics. He was flamboyant, handsome, amoral, and these qualities, allied with a talent for seduction, led him on a twenty-five-year fling through the boudoirs of the powerful, from the corporate towers of Abidjan to the Gardens of Novo Sibersk, and lastly to a beach on Mozambique, where at the age of forty-four he died horribly, a victim of a neural poison that purportedly had been designed for him by the noted chemist Virginia Holland. It was Virginia who was reputed to be Reynolds' mother, but no tests were ever conducted to substantiate the rumor. All we know for certain is that one morning Alex received a crate containing an artificial womb and the embryo of his son. An attached folder provided proof of his paternity and a note stating that the mother wanted no keepsake to remind her of an error in judgment."

"Alex felt no responsibility for the child, but liked having a relative to add to his coterie. Thus it was that Reynolds spent his first fourteen years globe-trotting, sleeping on floors, breakfasting off the remains of the previous night's party, and generally being ignored, if not rejected. As a defense against both this rejection and his father's charisma, Reynolds learned to mimick Alex's flamboyance and developed similar verbal skills. By the age of eleven he was performing regularly with his father's band, creating a popular sequence of drifts that detailed the feats of an all-powerful wizard and the trials of those who warred against him. Alex took pride in these performances; he saw himself as less father than elder brother, and he insisted on teaching Reynolds a brother's portion of the world. To this end he had one of his lovers seduce the boy on his twelfth birthday, and from then on Reynolds also mimicked his father's omnivorous sexuality. They did, indeed, seem brothers, and to watch Alex drape an arm over the boy's shoulders, the casual observer might have supposed them to be even closer. But there

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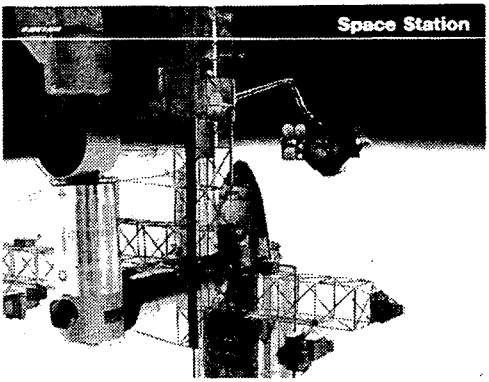

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was no strong bond between them, only a history of abuse. This is not to say that Reynolds was unaffected by his father's death, an event to which he was witness. The sight of Alex's agony left him severely traumatized and with a fear of death bordering on the morbid. When we consider this fear in alliance with his difficulty in expressing love—a legacy of his father's rejections—we have gone far in comprehending both his marital problems and his obsession with immortality, with immortality in any form, even that of a child . . ."

from *The Last Alchemist*
by Russell E. Barrett

3
Carolyn

Six months after the implantation of Reynolds' daughter in an artificial womb, I ran into Davis Brent at a pleasure dome where I had taken to spending my afternoons, enjoying the music, writing a memoir of my days with Reynolds, but refraining from infidelity. The child and my concern for Reynolds' mental state had acted to make me conservative: there were important decisions to be made, disturbing events afoot, and I wanted no distractions.

This particular dome was quite small, its walls Maxfield Parrish holographs—alabaster columns and scrolled archways that opened onto rugged mountains drenched in the colors of a pastel sunset; the patrons sat at marble tables, their drab jumpsuits at odds with the decadence of the decor. Sitting there, writing, I felt like some sad and damaged lady of a forgotten age, brought to the sorry pass of autobiography by a disappointment at love.

Without announcing himself, Brent dropped onto the bench opposite me and stared. A smile nicked the corners of his mouth. I waited for him to speak, and finally asked what he wanted.

"Merely to offer my congratulations," he said.

"On what occasion?" I asked.

"The occasion of your daughter."

The implantation had been done under a seal of privacy, and I was outraged that he had discovered my secret.

Before I could speak, he favored me with an unctuous smile and said, "As administrator, little that goes on here escapes me." From the pocket of his jumpsuit he pulled a leather case of the sort used to carry holographs. "I have a daughter myself, a lovely child. I sent her back to Earth some months back." He opened the case, studied the contents, and con-

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tinued, his words freighted with an odd tension. "I had the computer do a portrait of how she'll look in a few years. Care to see it?"

I took the case and was struck numb. The girl depicted was seven or eight, and was the spitting image of myself at her age.

"I never should have sent her back," said Brent. "It appears the womb has been misshipped, and I may not be able to find her. Even the records have been misplaced. And the tech who performed the implantation, he returned on the ship with the womb and has dropped out of sight."

I came to my feet, but he grabbed my arm and sat me back down. "Check on it if you wish," he said. "But it's the truth. If you want to help find her, you'd be best served by listening."

"Where is she?" A sick chill spread through me, and my heart felt as if it were not beating but trembling.

"Who knows? Sao Paolo, Paris. Perhaps one of the Urban Reserves."

"Please," I said, a catch in my voice. "Bring her back."

"If we work together, I'm certain we can find her."

"What do you want, what could you possibly want from me?"

He smiled again. "To begin with, I want copies of your husband's deep files. I need to know what he's working on."

I had no compunction against telling him; all my concern was for the child. "He's been investigating the possibility of life on the Sun."

The answer dismayed him. "That's ridiculous."

"It's true, he's found it!"

He gaped at me.

"He calls it the Sun Spider. It's huge . . . and made of some kind of plasma."

Brent smacked his forehead as to punish himself for an oversight. "Of course! That section in the *Diaries*." He shook his head in wonderment. "All that metaphysical gabble about particulate life . . . I can't believe that has any basis in fact."

"I'll help you," I said. "But please bring her back!"

He reached across the table and caressed my cheek. I stiffened but did not draw away. "The last thing I want to do is hurt you, Carolyn. Take my word, it's all under control."

Under control.

Now it seems to me that he was right, and that the controlling agency was no man or creature, but a coincidence of possibility and wish such as may have been responsible for the spark that first set fire to the stars.

Over the next two weeks I met several times with Brent, on each occasion delivering various of Reynolds' files; only one remained to be secured, and I assured Brent I would soon have it. How I hated him! And yet we were complicitors. Each time we met in his lab, a place of bare

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metal walls and computer banks, we would discuss means of distracting Reynolds in order to perform my thefts, and during one occasion I asked why he he had chosen Reynolds' work to pirate, since he had never been an admirer.

"Oh, but I am an admirer," he said. "Naturally I despise his personal style, the passing off of drugs and satyrism as scientific method. But I've never doubted his genius. Why, I was the one who approved his residency grant."

Disbelief must have showed on my face, for he went on to say, "It's true. Many of the board were inclined to reject him, thinking he was no longer capable of important work. But when I saw the Solar Equations, I knew he was still a force to reckon with. Have you looked at them?"

"I don't understand the mathematics."

"Fragmentary as they are, they're astounding, elegant. There's something almost mystical about their structure. You get the idea there's no need to study them, that if you keep staring at them they'll crawl into your brain and work some change." He made a church-and-steeple of his fingers. "I hoped he'd finish them here but . . . well, maybe that last file."

We went back to planning Reynolds' distraction. He rarely left the apartment anymore, and Brent and I decided that the time to act would be during his birthday party the next week. He would doubtless be heavily drugged, and I would be able to slip into the back room and access his computer. The discussion concluded, Brent stepped to the door that led to his apartment, keyed it open and invited me for a drink. I declined, but he insisted and I preceded him inside.

The apartment was decorated in appallingly bad taste. His furniture was of a translucent material that glowed a sickly bluish-green, providing the only illumination. Matted under glass on one wall was a twentieth century poster of a poem entitled "Desiderata," whose verses were the height of mawkish romanticism. The other walls were hung with what appeared to be ancient tapestries, but which on close inspection proved to be pornographic counterfeits, depicting subjects such as women mating with stags. Considering these appointments, I found hypocritical Brent's condemnation of Reynolds' private life. He poured wine from a decanter and made banal small talk, touching me now and then as he had during our first meeting. I forced an occasional smile, and at last, thinking I had humored him long enough, I told him I had to leave.

"Oh, no," he said, encircling my waist with an arm. "We're not through."

I pried his arm loose: he was not very strong.

"Very well." He touched a wall control, and a door to the corridor slid open. "Go."

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From America's #1 Financial Adviser

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The harsh white light shining through the door transformed him into a shadowy figure and made his pronouncement seem a threat.

"Go on." He drained his wine. "I've got no hold on you."

God, he thought he was clever! And he was . . . more clever than I, perhaps more so than Reynolds. And though he was to learn that cleverness has its limits, particularly when confronted by the genius of fate, it was sufficient to the moment.

"I'll stay," I said.

". . . In the dance of the Spider, in his patterned changes in color, the rhythmic waving of his fiery arms, was a kind of language, the language that the Equations sought to clarify, the language of my dreams. I sat for hours watching him; I recorded several sequences on pocket holographs and carried them about in hopes that this propinquity would illuminate the missing portions of the Equations. I made some progress, but I had concluded that a journey sunwards was the sort of propinquity I needed—I doubted I had the courage to achieve it. However, legislating against my lack of courage was the beauty I had begun to perceive in the Spider's dance, the hypnotic grace: like that of a Balinese dancer, possessing a similar allure. I came to believe that those movements were signaling all knowledge, infinite possibility. My dreams began to be figured with creatures that I would have previously considered impossible—dragons, imps, men with glowing hands or whose entire forms were glowing, all a ghostly, grainy white; now these creatures came to seem not only possible but likely inhabitants of a world that was coming more and more into focus, a world to which I was greatly attracted. Sometimes I would lie in bed all day, hoping for more dreams of that world, of the wizard who controlled it. It may be that I was using the dreams to escape confronting a difficult and frightening choice. But in truth I have lately doubted that it is even mine to make."

from *Collected Notes*
by Reynolds Dulambre

4
Reynolds

I remember little of the party, mostly dazed glimpses of breasts and thighs, sweaty bodies, lidded eyes. I remember the drift, which was performed by a group of techs. They played Alex's music as an *hommage,*

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and I was taken back to my years with the old bastard-maker, to memories of beatings, of walking in on him and his lovers, of listening to him pontificate. And, of course, I recalled that night in Mozambique when I watched him claw at his eyes, his face. Spitting missiles of blood, unable to scream, having bitten off his tongue. Sobered, I got to my feet and staggered into the bedroom, where it was less crowded, but still too crowded for my mood. I grabbed a robe, belted it on and keyed my study door.

As I entered, Carolyn leaped up from my computer. On the screen was displayed what looked to be a page from my deep files. She tried to switch off the screen, but I caught her arm and checked the page: I had not been mistaken. "What are you doing?" I shouted, yanking her away from the computer.

"I was just curious." She tried to jerk free.

Then I spotted the microcube barnacled to the computer: she had been recording. "What's that?" I asked, forcing her to look at it. "What's that? Who the hell are you working for?"

She began to cry, but I wasn't moved. We had betrayed each other a thousand times, but never to this degree.

"Damn you!" I slapped her. "Who is it?"

She poured out the story of Brent's plan, his demands on her. "I'm sorry," she said, sobbing. "I'm sorry."

I felt so much then, I couldn't characterize it as fear or anger or any specific emotion. In my mind's eye I saw the child, that scrap of my soul, disappearing down some earthly sewer. I threw off my robe, stepped into a jumpsuit.

"Where are you going?" Carolyn asked, wiping away tears.

I zipped up the jumpsuit.

"Don't!" Carolyn tried to haul me back from the door. "You don't understand!"

I shoved her down, locked the door behind me, and went storming out through the party and into the corridor. Rage flooded me. I needed to hurt Brent. My reason was so obscured that when I reached his apartment, I saw nothing suspicious in the fact that the door was open . . . though I later realized he must have had a spy at the party to warn him of anything untoward. Inside, Brent was lounging in one of those ridiculous glowing chairs, a self-satisfied look on his face, and it was that look more than anything, more than the faint scraping at my rear, that alerted me to danger. I spun around to see a security guard bringing his laser to bear on me. I dove at him, feeling a discharge of heat next to my ear, and we went down together. He tried to gouge my eyes, but I twisted away, latched both hands in his hair and smashed his head against the wall. The third time his head impacted, it made a softer sound than it

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had the previous two, and I could feel the skull shifting beneath the skin like pieces of broken tile in a sack. I rolled off the guard, horrified, yet no less enraged. And when I saw that Brent's chair was empty, when I heard him shouting in the corridor, even though I knew his shouts would bring more guards, my anger grew so great that I cared nothing for myself, I only wanted him dead.

By the time I emerged from the apartment, he was sprinting around a curve in the corridor. My laser scored the metal wall behind him the instant before he went out of sight. I ran after him. Several of the doorways along the corridor slid open, heads popped out, and on seeing me, ducked back in. I rounded the curve, spotted Brent, and fired again . . . too high by inches. Before I could correct my aim, half-a-dozen guards boiled out of a side corridor and dragged him into cover. Their beams drew smouldering lines in the metal by my hip, at my feet, and I retreated, firing as I did, pounding on the doors, thinking that I would barricade myself in one of the rooms and try to debunk Brent's lies, to reveal his deceit over the intercom. But none of the doors opened, their occupants having apparently been frightened by my weapon.

Two guards poked their heads around the curve, fired, and one of the beams came so near that it torched the fabric of my jumpsuit at the knee. I beat out the flames and ran full tilt. Shouts behind me, beams of ruby light skewering the air above my head. Ahead, I made out a red door that led to a docking arm, and having no choice, I keyed it open and raced along the narrow passageway. The first three moorings were empty, but the fourth had a blue light glowing beside the entrance hatch, signaling the presence of a ship. I slipped inside, latched it, and moved along the tunnel into the airlock; I bolted that shut, then went quickly along the mesh-walled catwalk toward the control room, toward the radio. I was on the point of entering the room, when I felt a shudder go all through the ship and knew it had cast loose, that it was headed sunwards.

Panicked, I burst into the control room. The chairs fronting the instrument panel were empty, the panel itself aflicker with lights; the ship was being run by computer. I sat at the board, trying to override, but no tactic had any effect. Then Brent's voice came over the speakers. "You've bought yourself a little time, Reynolds," he said."That's all. When the ship returns, we'll have you."

I laughed.

It had been my hope that he had initiated the ship's flight, but his comments made clear that I was now headed toward the confrontation I had for so long sought to avoid, brought to this pass by a computer under the control of the creature for whom I had searched my entire life, a creature of fire and dreams, the stuff of souls. I knew I would not

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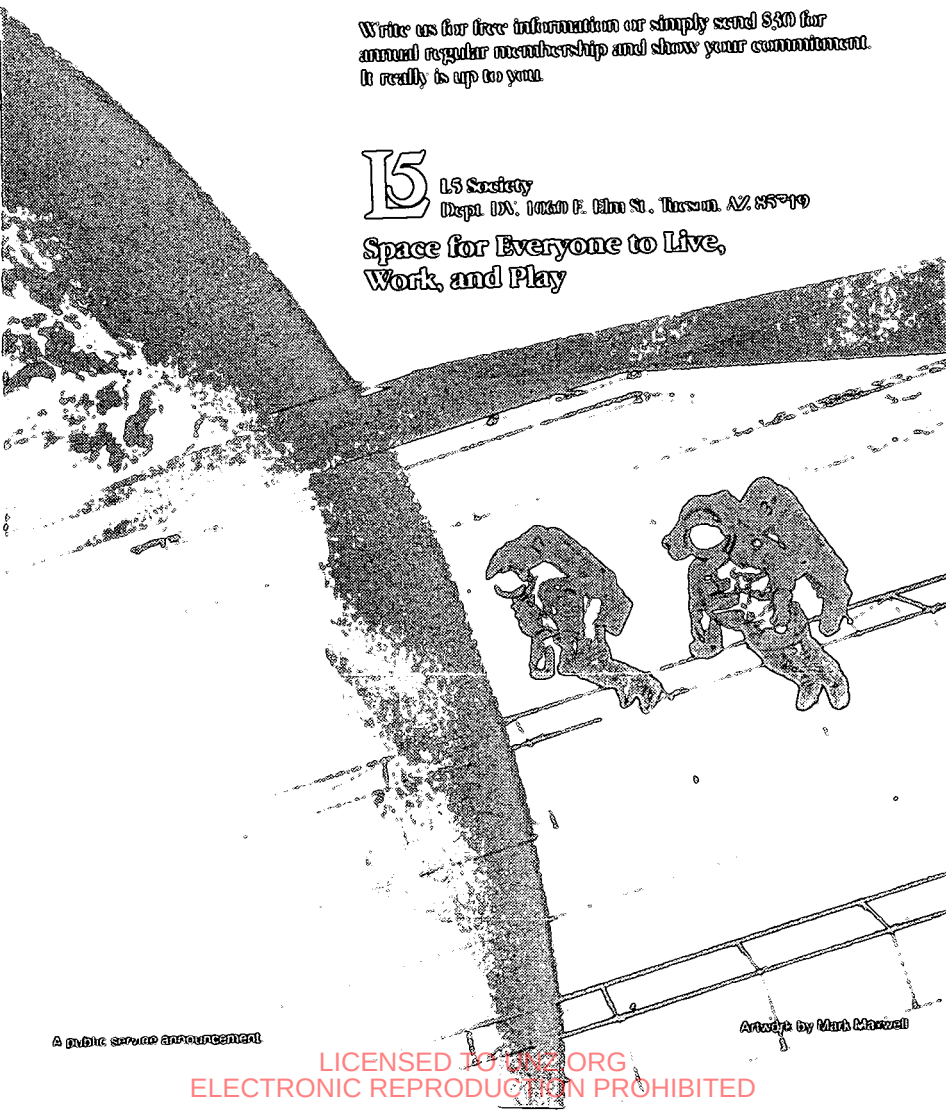

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survive it. But though I had always dreaded the thought of death, now that death was hard upon me, I was possessed of a strange confidence and calm . . . calm enough to send this transmission, to explore the confines of this my coffin, even to read the manuals that explain its operation. I had never attempted to understand the workings of the sunships, and I was interested to read of the principles that underlie each flight. As the ship approaches the Sun, it will monitor the magnetic field direction and determine if the Archimedean spiral of the solar wind is oriented outward.

If all is as it should be, it will descend to within one A.U. and will skip off the open-diverging magnetic field of a coronal hole. It will be traveling at such a tremendous speed, its actions will be rather like those of a charged particle caught in a magnetic field, and as the field opens out, it will be flung upward, back toward Helios . . . that is, it will be flung up and out if a creature who survives by stripping particles of their charge does not inhabit the coronal hole in question. But there is little chance of that.

I wonder how it will feel to have my charge stripped. I would not care to suffer the agonies of my father.

The closer I come to the Sun, the more calm I become. My mortal imperfections seem to be flaking away. I feel clean and minimal, and I have the notion that I will soon be even simpler, the essential splinter of a man. I have so little desire left that only one further thing occurs to me to say.

Carolyn, I . . .

". . . A man walking in a field of golden grass under a bright sky, walking steadfastly, though with no apparent destination, for the grasslands spread to the horizon, and his thoughts are crystal-clear, and his heart, too, is clear, for his past has become an element of his present, and his future—visible as a sweep of golden grass carpeting the distant hills, beyond which lies a city sparkling like a glint of possibility—is as fluent and clear as his thought, and he knows his future will be shaped by his walking, by his thought and the power in his hands, especially by that power, and of all this he wishes now to speak to a woman whose love he denied, whose flesh had the purity of the clear bright sky and the golden grasses who was always the heart of his life even in the country of lies, and here in the heartland of the country of truth is truly loved at last . . ."

from *The Resolute Lover*
part of The White Dragon Cycle

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5
Carolyn

After Reynolds had stolen the sunship—this, I was informed, had been the case—Brent confined me to my apartment and accused me of conspiring with Reynolds to kill him. I learned of Reynolds' death from the security guard who brought me supper that first night; he told me that a prominence (I pictured it to be a fiery fishing lure) had flung itself out from the Sun and incinerated the ship. I wept uncontrollably. Even after the computers began to translate the coded particle bursts emanating from the Spider's coronal hole, even when these proved to be the completed Solar Equations, embodied not only in mathematics but in forms comprehensible to a layman, still I wept. I was too overwhelmed by grief to realize what they might portend.

I was able to view the translations on Reynolds' computer, and when the stories of the White Dragon Cycle came into view, I understood that whoever or whatever had produced them had something in particular to say to me. It was *The Resolute Lover,* the first of the cycle, with its numerous references to a wronged beautiful woman, that convinced me of this. I read the story over and over, and in so doing I recalled Brent's description of the feelings he had had while studying the equations. I felt in the focus of some magical lens, I felt a shimmering in my flesh, confusion in my thoughts . . . not a confusion of motive but of thoughts running in new patterns, colliding with each other like atoms bred by a runaway reactor. I lost track of time, I lived in a sweep of golden grasses, in an exotic city where the concepts of unity and the divisible were not opposed, where villains and heroes and beasts enacted ritual passions, where love was the ordering pulse of existence.

One day Brent paid me a visit. He was plumped with self-importance, with triumph. But though I hated him, emotion seemed incidental to my goal—a goal his visit helped to solidify—and I reacted to him mildly, watching as he moved about the room, watching me and smiling.

"You're calmer than I expected," he said.

I had no words for him, only calm. In my head the Resolute Lover gazed into a crystal of Knowledge, awaiting the advent of Power. I believe that I, too, smiled.

"Well," he said. "Things don't always work out as we plan. But I'm pleased with the result. The Spider will be Reynolds' great victory . . . no way around that. Still, I've managed to land the role of Sancho Panza to his Don Quixote, the rationalist who guided the madman on his course."

My smile was a razor, a knife, a flame.

"Quite sufficient," he went on, "to secure my post . . . and perhaps even

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my immortality."

I spoke to him in an inaudible voice that said Death.

His manner grew more agitated; he twitched about the room, touching things. "What will I do with you?" he said. "I'd hate to send you to your judgment. Our nights together . . . well, suffice it to say I would be most happy if you'd stay with me. What do you think? Shall I testify on your behalf, or would you prefer a term on the Urban Reserves?"

Brent, Brent, Brent. His name was a kind of choice.

"Perhaps you'd like time to consider?" he said.

I wished my breath was poison.

He edged toward the door. "When you reach a decision, just tell the guard outside. You've two months 'til the next ship. I'm betting you'll choose survival."

My eyes sent him a black kiss.

"Really, Carolyn," he said. "You were never a faithful wife. Don't you think this pose of mourning somewhat out of character?"

Then he was gone, and I returned to my reading.

Love.

What part did it play in my desire for vengeance, my furious calm? Sorrow may have had more a part, but love was certainly a factor. Love as practiced by the Resolute Lover. This story communicated this rigorous emotion, and my heartsickness translated it to vengeful form. My sense of unreality, of tremulous being, increased day by day, and I barely touched my meals.

I am not sure when the Equations embodied by the story began to take hold, when the seeded knowledge became power. I believe it was nearly two weeks after Brent's visit. But though I felt my potential, my strength, I did not act immediately. In truth, I was not certain I could act or that action was to be my course. I was mad in the same way Reynolds had been: a madness of self-absorption, a concentration of such intensity that nothing less intense had the least relevance.

One night I left off reading, went into my bedroom and put on a sheer robe, then wrapped myself in a cowled cloak. I had no idea why I was doing this. The seductive rhythms of the story were coiling through my head and preventing thought. I walked into the front room and stood facing the door. Violent tremors shook my body. I felt frail, insubstantial, yet at the same time possessed of fantastic power: I knew that nothing could resist me . . . not steel or flesh or fire. Inspired by this confidence, I reached out my right hand to the door. The hand was glowing a pale white, its form flickering, the fingers lengthening and attenuating, appearing to ripple as in a graceful dance. I did not wonder at this. Everything was as it should be. And when my hand slid into the door, into the

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metal, neither did I consider that remarkable. I could feel the mechanisms of the lock, I—or rather my ghostly fingers—seemed to know the exact function of every metal bit, and after a moment the door hissed open.

The guard peered in, startled, and I hid the hand behind me. I backed away, letting the halves of my cloak fall apart. He stared, glanced left and right in the corridor, and entered. "How'd you do the lock?" he asked.

I said nothing.

He keyed the door, testing it, and slid it shut, leaving the two of us alone in the room. "Huh," he said. "Must have been a computer foul-up."

I came close beside him, my head tipped back as if to receive a kiss, and he smiled, he held me around the waist. His lips mashed against mine, and my right hand, seeming almost to be acting on its own, slipped into his side and touched something that beat wildly for a few seconds, and then spasmed. He pushed me away, clutching his chest, his face purpling, and fell to the floor. Emotionless, I stepped over him and went out into the corridor, walking at an unhurried pace, hiding my hand beneath the cloak.

On reaching Brent's apartment, I pressed the bell, and a moment later the door opened and he peered forth, looking sleepy and surprised. "Carolyn!" he said. "How did you get out?"

"I told the guard I planned to stay with you," I said, and as I had done with the guard, I parted the halves of my cloak.

His eyes dropped to my breasts. "Come in," he said, his voice blurred.

Once inside, I shed the cloak, concealing my hand behind me. I was so full of hate, my mind was heavy and blank like a stone. Brent poured some wine, but I refused the glass. My voice sounded dead, and he shot me a searching look and asked if I felt well. "I'm fine," I told him.

He set down the wine and came toward me, but I moved away.

"First," I said, "I want to know about my daughter."

That brought him up short. "You have no daughter," he said after a pause. "It was all a hoax."

"I don't believe you."

"I swear it's true," he said. "When you went for an exam, I had the tech inform you of a pregnancy. But you weren't pregnant. And when you came for the implantation procedure, he anesthetized you and simply stood by until you woke up."

It would have been in character, I realized, for him to have done this. Yet he also might have been clever enough to make up the story, and thus keep a hold on me, one he could inform me of should I prove recalcitrant.

"But you can have a child," he said, sidling toward me. "Our child, Carolyn. I'd like that, I'd like it very much." He seemed to be having

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some difficulty in getting the next words out, but finally they came: "I love you."

What twisted shape, I wondered, did love take in his brain?

"Do you?" I said.

"I know it must be hard to believe," he said. "You can't possibly understand the pressure I've been under, the demands that forced my actions. But I swear to you, Carolyn, I've always cared for you. I knew how oppressed you were by Reynolds. Don't you see? To an extent I was acting on your behalf. I wanted to free you."

He said all this in a whining tone, edging close, so close I could smell his bitter breath. He put a hand on my breast, lifted it. . . . Perhaps he did love me in his way, for it seemed a treasuring touch. But mine was not. I laid my palely glowing hand on the back of his neck. He screamed, went rigid, and oh, how that scream made me feel! It was like music, his pain. He stumbled backward, toppled over one of the luminous chairs, and lay writhing, clawing his neck.

"Where is she?" I asked, kneeling beside him.

Spittle leaked between his gritted teeth. "I'll . . . find her, bring her . . . oh!"

I saw I could never trust him. Desperate, he would say anything. He might bring me someone else's child. I touched his stomach, penetrating the flesh to the first joint of my fingers, then wiggling them. Again he screamed. Blood mapped the front of his jumpsuit.

"Where is she?" I no longer was thinking about the child: she was lost, and I was only tormenting him.

His speech was incoherent, he tried to hump away. I showed him my hand, how it glowed, and his eyes bugged.

"Do you still love me?" I asked, touching his groin, hooking my fingers and pulling at some fiber.

Agony bubbled in his throat, and he curled up around his pain, clutching himself.

I could not stop touching him. I orchestrated his screams, producing short ones, long ones, ones that held a strained hoarse chord. My hatred was a distant emotion. I felt no fury, no glee. I was merely a craftsman, working to prolong his death. Pink films occluded the whites of his eyes, his teeth were stained to crimson, and at last he lay still.

I sat beside him for what seemed a long time. Then I donned my cloak and walked back to my apartment. After making sure no one was in the corridor, I dragged the dead guard out of the front room and propped him against the corridor wall. I reset the lock, stepped inside, and the door slid shut behind me. I felt nothing. I took up *The Resolute Lover,* but even my interest in it had waned. I gazed at the walls, growing thoughtless, remembering only that I had been somewhere, done some violence;

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I was perplexed by my glowing hand. But soon I fell asleep, and when I was waked by the guards unlocking the door, I found that the hand had returned to normal.

"Did you hear anything outside?" asked one of the guards.

"No," I said. "What happened?"

He told me the gory details, about the dead guard and Brent. Like everyone else on Helios Station, he seemed more confounded by these incomprehensible deaths than by the fantastic birth that had preceded them.

"The walls of the station have been plated with gold, the corridors are thronged with tourists, with students come to study the disciplines implicit in the Equations, disciplines that go far beyond the miraculous transformation of my hand. Souvenir shops sell holos of the Spider, recordings of The White Dragon Cycle (now used to acclimate children to the basics of the equations), and authorized histories of the sad events surrounding the Spider's emergence. The pleasure domes reverberate with Alex Dulambre's drifts, and in an auditorium constructed for this purpose, Reynolds' clone delivers daily lectures on the convoluted circumstances of his death and triumph. The place is half amusement park, half shrine. Yet the greatest memorial to Reynolds' work is not here; it lies beyond the orbit of Pluto and consists of a vast shifting structure of golden light wherein dwell those students who have mastered the disciplines and overcome the bonds of corporeality. They are engaged, it is said, in an unfathomable work that may have taken its inspiration from Reynolds' metaphysical flights of fancy, or—and many hold to this opinion—may reflect the Spider's design, his desire to rid himself of the human nuisance by setting us upon a new evolutionary course. After Brent's death I thought to join in this work. But my mind was not suited to the disciplines; I had displayed all the mastery of which I was capable in dispensing with Brent.

"I have determined to continue the search for my daughter. It may be—as Brent claimed—that she does not exist, but it is all that is left to me, and I have made my resolve accordingly. Still, I have not managed to leave the station, because I am drawn to Reynolds' clone. Again and again I find myself in the rear of the auditorium, where I watch him pace the dias, declaiming in his most excited manner. I yearn to approach him, to learn how like Reynolds he truly is. I am certain he has spotted me on several occasions, and I wonder what he is thinking, how it would be to

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speak to him, touch him. Perhaps this is perverse of me, but I cannot help wondering . . ."

from *Days In The Sun*
by Carolyn Dulambre

6
Carolyn/Reynolds

I had been wanting to talk with her since . . . well, since this peculiar life began. Why? I loved her, for one thing. But there seemed to be a far more compelling reason, one I could not verbalize. I suppressed the urge for a time, not wanting to hurt her; but seeing that she had begun to appear at the lectures, I finally decided to make an approach.

She had taken to frequenting a pleasure dome named Spider's. Its walls were holographic representations of the Spider, and these were strung together with golden webs that looked molten against the black backdrop, like seams of unearthly fire. In this golden dimness the faces of the patrons glowed like spirits, and the glow seemed to be accentuated by the violence of the music. It was not a place to my taste, nor—I suspect—to hers. Perhaps her patronage was a form of courage, of facing down the creature who had caused her so much pain.

I found her seated in a rear corner, drinking an Amouriste, and when I moved up beside her table, she paid me no mind. No one ever approached her; she was as much a memorial as the station itself, and though she was still a beautiful woman, she was treated like the wife of a saint. Doubtless she thought I was merely pausing by the table, looking for someone. But when I sat opposite her, she glanced up and her jaw dropped.

"Don't be afraid," I said.

"Why should I be afraid?"

"I thought my presence might . . . discomfort you."

She met my eyes unflinchingly. "I suppose I thought that, too."

"But . . . ?"

"It doesn't matter."

A silence built between us.

She wore a robe of golden silk, cut to expose the upper swells of her breasts, and her hair was pulled back from her face, laying bare the smooth serene lines of her beauty, a beauty that had once fired me, that did so even now.

"Look," I said. "For some reason I was drawn to talk to you, I feel I have . . ."

"I feel the same." She said this with a strong degree of urgency, but then tried to disguise the fact. "What shall we talk about?"

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"I'm not sure."

She tapped a finger on her glass. "Why don't we walk?"

Everyone watched as we left, and several people followed us into the corridor, a circumstance that led me to suggest that we talk in my apartment. She hesitated, then signalled agreement with the briefest of nods. We moved quickly through the crowds, managing to elude our pursuers, and settled into a leisurely pace. Now and again I caught her staring at me, and asked if anything was wrong.

"Wrong?" She seemed to be tasting the word, trying it out. "No," she said. "No more than usual."

I had thought that when I did talk to him I would find he was merely a counterfeit, that he would be nothing like Reynolds, except in the most superficial way. But this was not the case. Walking along that golden corridor, mixing with the revelers who poured between the shops and bars, I felt toward him as I had on the day we had met in the streets of Abidjan: powerfully attracted, vulnerable, and excited. And yet I did perceive a difference in him. Whereas Reynolds' presence had been commanding and intense, there had been a brittleness to that intensity, a sense that his diamond glitter might easily be fractured. With this Reynolds, however, there was no such inconstancy. His presence—while potent—was smooth, natural, and unflawed.

Everywhere we walked we encountered the fruits of the Equations: matter transmitters; rebirth parlors, where one could experience a transformation of both body and soul; and the omnipresent students, some of them half-gone into a transcorporeal state, cloaked to hide this fact, but their condition evident by their inward-looking eyes. With Reynolds beside me, all this seemed comprehensible, not—as before—a carnival of meaningless improbabilities. I asked what he felt on seeing the results of his work, and he said, "I'm really not concerned with it."

"What are you concerned with?"

"With you, Carolyn," he said.

The answer both pleased me and made me wary. "Surely you must have more pressing concerns," I said.

"Everything I've done was for you." A puzzled expression crossed his face.

"Don't pretend with me!" I snapped, growing angry. "This isn't a show, this isn't the auditorium."

He opened his mouth, but bit back whatever he had been intending to say, and we walked on.

"Forgive me," I said, realizing the confusion that must be his. "I . . ."

"No need for forgiveness," he said. "All our failures are behind us now."

* * *

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I didn't know from where these words were coming. They were my words, yet they also seemed spoken from a place deep inside myself, one whose existence had been hidden until now, and it was all I could do to hold them back. We passed into the upper levels of the station, where the permanent staff was quartered, and as we rounded a curve, we nearly ran into a student standing motionless, gazing at the wall: a pale young man with black hair, a thin mouth, and a gray cape. His eyes were dead-looking, and his voice sepulchral. "It awaits," he said.

They are so lost in self-contemplation, these students, that they are likely to say anything. Some fancy them oracles, but not I: their words struck me as being random, sparks from a frayed wire.

"What awaits?" I asked, amused.

"Life . . . the city."

"Ah," I said. "And how do I get there?"

"You . . ." He lapsed into an open-mouthed stare.

Carolyn pulled at me, and we set off again. I started to make a joke about the encounter, but seeing her troubled expression, I restrained myself.

When we entered my apartment, she stopped in the center of the living room, transfixed by the walls. I had set them to display the environment of the beginning of *The Resolute Lover:* an endless sweep of golden grasses, with a sparkling on the horizon that might have been the winking of some bright tower.

"Does this bother you?" I asked, gesturing at the walls.

"No, they startled me, that's all." She strolled along, peering at the grasses, as if hoping to catch sight of someone. Then she turned, and I spoke again from that deep hidden place, a place that now—responding to the sight of her against those golden fields—was spreading all through me.

"Carolyn, I love you," I said . . . and this time I knew who it was that spoke.

He had removed his cloak, and his body was shimmering, embedded in that pale glow that once had made a weapon of my right hand. I backed away, terrified. Yet even in the midst of fear, it struck me that I was not as terrified as I should have been, that I was not at the point of screaming, of fleeing.

"It's me, Carolyn," he said.

"No," I said, backing further away.

"I don't know why you should believe me." He looked at his flickering hand. "I didn't understand it myself until now."

"Who are you?" I asked, gauging the distance to the door.

"You know," he said. "The Spider . . . he's all though the station. In

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the computer, the labs, even in the tanks from which my cells were grown. He's brought us together again."

He tried to touch me, and I darted to the side.

"I won't hurt you," he said.

"I've seen what a touch can do."

"Not my touch, Carolyn."

I doubted I could make it to the door, but readied myself for a try.

"Listen to me, Carolyn," he said. "Everything we wanted in the beginning, all the dreams and fictions of love, they can be ours."

"I never wanted that," I said. "You did! I only wanted normalcy, not some . . ."

"All lovers want the same thing," he said. "Disillusionment leads them to pretend they want less." He stretched out his hands to me. "Everything awaits us, everything is prepared. How this came to be, I can't explain. Except that it makes a funny kind of sense for the ultimate result of science to be an incomprehensible magic."

I was still afraid, but my fear was dwindling, lulled by the rhythms of his words, and though I perceived him to be death, I also saw clearly that he was Reynolds, Reynolds made whole.

"This was inevitable," he said. "We both knew something miraculous could happen . . . that's why we stayed together, despite everything. Don't be afraid. I could never hurt you more than I have."

"What's inevitable?" I asked. He was too close for me to think of running, and I thought I could delay him, put him off with questions.

"Can't you feel it?" He was so close, now, I could feel his heat. "I can't tell you what it is, Carolyn, only that it is, that it's life . . . a new life."

"The Spider," I said. "I don't understand, I . . ."

"No more questions," he said, and slipped the robes from my shoulders.

His touch was warmer than natural, making my eyelids droop, but causing no pain. He pulled me down to the floor, and in a moment he was inside me, we were heart to heart, moving together, enveloped in that pale flickering glow, and amidst the pleasure I felt, there was pain, but so little it did not matter . . .

. . . and I, too, was afraid, afraid I was not who I thought, that flames and nothingness would obliterate us, but in having her once again, in the consummation of my long wish, my doubts lessened . . .

. . . and I could no longer tell whether my eyes were open or closed, because sometimes when I thought them closed, I could see him, his face slack with pleasure, head flung back . . .

. . . and when I thought they were open I would have a glimpse of

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another place wherein she stood beside me, glimpses at first too brief for me to fix them in mind . . .

. . . and everything was whirling, changing, my body, my spirit, all in flux, and death—if this was death—was a long decline, a sweep of golden radiance, and behind me I could see the past reduced to a plain and hills carpeted with golden grasses . . .

. . . and around me golden towers, shimmering, growing more stable and settling into form moment by moment, and people shrouded in golden mist who were also becoming more real, acquiring scars and rags and fine robes, carrying baskets and sacks . . .

. . . and this was no heaven, no peaceful heaven, for as we moved beneath those crumbling towers of yellow stone, I saw soldiers with oddly shaped spears on the battlements, and the crowds around us were made up of hardbitten men and women wearing belted daggers, and old crones bent double under the weight of sacks of produce, and younger women with the look of ill-usage about them, who leaned from the doors and windows of smoke-darkened houses and cried out their price . . .

. . . and the sun overhead seemed to shift, putting forth prominences that rippled and undulated as in a dance, and shone down a ray of light to illuminate the tallest tower, the one we had sought for all these years, the one whose mystery we must unravel . . .

. . . and the opaque image of an old man in a yellow robe was floating above the crowd, his pupils appearing to shift, to put forth fiery threads as did the sun, and he was haranguing us, daring us all to penetrate his tower, to negotiate his webs and steal the secrets of time . . .

. . . and after wandering all day, we found a room in an inn not half a mile from the wizard's tower, a mean place with grimy walls and scuttlings in the corners and a straw mattress that crackled when we lay on it. But it was so much more than we'd had in a long, long time, we were delighted, and when night had fallen, with moonlight streaming in and the wizard's tower visible through a window against the deep blue of the sky, the room seemed palatial. We made love until well past midnight, love as we had never practiced it: trusting, unfettered by inhibition. And afterward, still joined, listening to the cries and music of the city, I suddenly remembered my life in that other world, the Spider, Helios Station, everything, and from the tense look on Carolyn's face, from her next words, I knew that she, too, had remembered.

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"Back at Helios," she said, "we were making love, lying exactly like this, and . . ." She broke off, a worry line creasing her brow. "What if this is all a dream, a moment between dying and death?"

"Why should you think that?"

"The Spider . . . I don't know. I just felt it was true."

"It's more reasonable to assume that everything is a form of transition between the apartment and this room. Besides, why would the Spider want you to to die?"

"Why has he done any of this? We don't even know what he is . . . a demon, a god."

"Or something of mine," I said.

"Yes, that . . . or death."

I stroked her hair, and her eyelids fluttered down.

"I'm afraid to go to sleep," she said.

"Don't worry," I said. "I think there's more to this than death."

"How do you know?"

"Because of how we are."

"That's why I think it *is* death," she said. "Because it's too good to last."

"Even if it is death," I told her, "in this place death might last longer than our old lives."

Of course I was certain of very little myself, but I managed to soothe her, and soon she was asleep. Out the window, the wizard's tower—if, indeed, that's what it was—glowed and rippled, alive with power, menacing in its brilliance. But I was past being afraid. Even in the face of something as unfathomable as a creature who has appropriated the dream of a man who may have dreamed it into existence and fashioned thereof either a life or a death, even in a world of unanswerable questions, when love is certain—love, the only question that is its own answer—everything becomes quite simple, and, in the end, a matter of acceptance.

"We live in an old chaos of the sun."
Wallace Stevens ●

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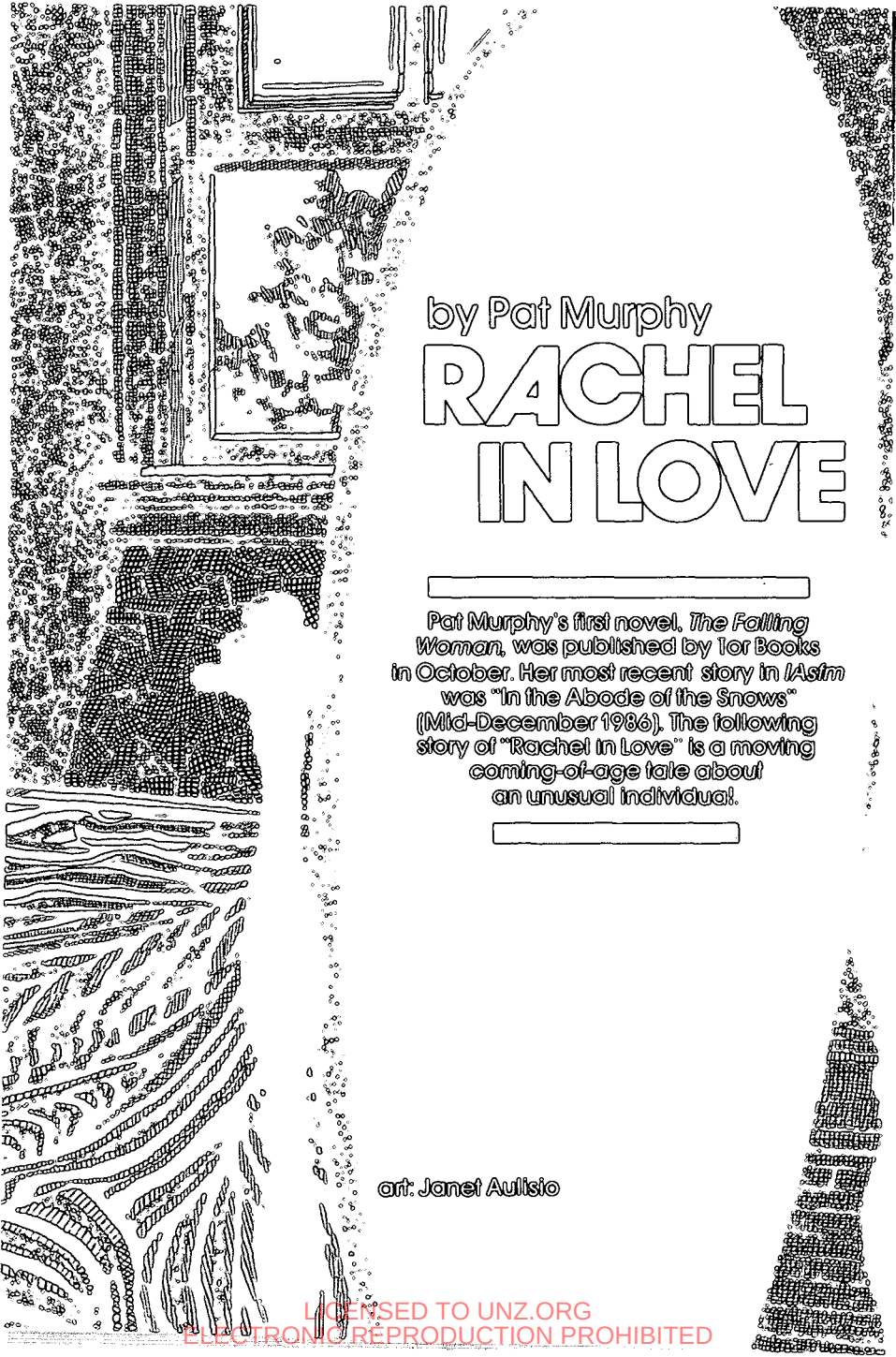

by Pat Murphy

RACHEL IN LOVE

Pat Murphy's first novel, *The Falling Woman*, was published by Tor Books in October. Her most recent story in *IAsim* was "In the Abode of the Snows" (Mid-December 1986). The following story of "Rachel in Love" is a moving coming-of-age tale about an unusual individual.

art: Janet Aulisio

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It is a Sunday morning in summer and a small brown chimpanzee named Rachel sits on the living room floor of a remote ranch house on the edge of the Painted Desert. She is watching a Tarzan movie on television. Her hairy arms are wrapped around her knees and she rocks back and forth with suppressed excitement. She knows that her father would say that she's too old for such childish amusements—but since Aaron is still sleeping, he can't chastise her.

On the television, Tarzan has been trapped in a bamboo cage by a band of wicked Pygmies. Rachel is afraid that he won't escape in time to save Jane from the ivory smugglers who hold her captive. The movie cuts to Jane, who is tied up in the back of a jeep, and Rachel whimpers softly to herself. She knows better than to howl: she peeked into her father's bedroom earlier, and he was still in bed. Aaron doesn't like her to howl when he is sleeping.

When the movie breaks for a commercial, Rachel goes to her father's room. She is ready for breakfast and she wants him to get up. She tiptoes to the bed to see if he is awake.

His eyes are open and he is staring at nothing. His face is pale and his lips are a purplish color. Dr. Aaron Jacobs, the man Rachel calls father, is not asleep. He is dead, having died in the night of a heart attack.

When Rachel shakes him, his head rocks back and forth in time with her shaking, but his eyes do not blink and he does not breathe. She places his hand on her head, nudging him so that he will waken and stroke her. He does not move. When she leans toward him, his hand falls limply to dangle over the edge of the bed.

In the breeze from the open bedroom window, the fine wisps of grey hair that he had carefully combed over his bald spot each morning shift and flutter, exposing the naked scalp. In the other room, elephants trumpet as they stampede across the jungle to rescue Tarzan. Rachel whimpers softly, but her father does not move.

Rachel backs away from her father's body. In the living room, Tarzan is swinging across the jungle on vines, going to save Jane. Rachel ignores the television. She prowls through the house as if searching for comfort—stepping into her own small bedroom, wandering through her father's laboratory. From the cages that line the walls, white rats stare at her with hot red eyes. A rabbit hops across its cage, making a series of slow dull thumps, like a feather pillow tumbling down a flight of stairs.

She thinks that perhaps she made a mistake. Perhaps her father is just sleeping. She returns to the bedroom, but nothing has changed. Her father lies open-eyed on the bed. For a long time, she huddles beside his body, clinging to his hand.

He is the only person she has ever known. He is her father, her teacher, her friend. She cannot leave him alone.

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The afternoon sun blazes through the window, and still Aaron does not move. The room grows dark, but Rachel does not turn on the lights. She is waiting for Aaron to wake up. When the moon rises, its silver light shines through the window to cast a bright rectangle on the far wall.

Outside, somewhere in the barren rocky land surrounding the ranch house, a coyote lifts its head to the rising moon and wails, a thin sound that is as lonely as a train whistling through an abandoned station. Rachel joins in with a desolate howl of loneliness and grief. Aaron lies still and Rachel knows that he is dead.

When Rachel was younger, she had a favorite bedtime story. —Where did I come from? she would ask Aaron, using the abbreviated gestures of ASL, American Sign Language. —Tell me again.

"You're too old for bedtime stories," Aaron would say.

—Please, she'd sign. —Tell me the story.

In the end, he always relented and told her. "Once upon a time, there was a little girl named Rachel," he said. "She was a pretty girl, with long golden hair like a princess in a fairy tale. She lived with her father and her mother and they were all very happy."

Rachel would snuggle contentedly beneath her blankets. The story, like any good fairy tale, had elements of tragedy. In the story, Rachel's father worked at a university, studying the workings of the brain and charting the electric fields that the nervous impulses of an active brain produced. But the other researchers at the university didn't understand Rachel's father; they distrusted his research and cut off his funding. (During this portion of the story, Aaron's voice took on a bitter edge.) So he left the university and took his wife and daughter to the desert, where he could work in peace.

He continued his research and determined that each individual brain produced its own unique pattern of fields, as characteristic as a fingerprint. (Rachel found this part of the story quite dull, but Aaron insisted on including it.) The shape of this "Electric Mind," as he called it, was determined by habitual patterns of thoughts and emotions. Record the Electric Mind, he postulated, and you could capture an individual's personality.

Then one sunny day, the doctor's wife and beautiful daughter went for a drive. A truck barreling down a winding cliffside road lost its brakes and met the car head-on, killing both the girl and her mother. (Rachel clung to Aaron's hand during this part of the story, frightened by the sudden evil twist of fortune.)

But though Rachel's body had died, all was not lost. In his desert lab, the doctor had recorded the electrical patterns produced by his daughter's brain. The doctor had been experimenting with the use of external mag-

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netic fields to impose the patterns from one animal onto the brain of another. From an animal supply house, he obtained a young chimpanzee. He used a mixture of norepinephrin-based transmitter substances to boost the speed of neural processing in the chimp's brain, and then he imposed the pattern of his daughter's mind upon the brain of this young chimp, combining the two after his own fashion, saving his daughter in his own way. In the chimp's brain was all that remained of Rachel Jacobs.

The doctor named the chimp Rachel and raised her as his own daughter. Since the limitations of the chimpanzee larynx made speech very difficult, he instructed her in ASL. He taught her to read and to write. They were good friends, the best of companions.

By this point in the story, Rachel was usually asleep. But it didn't matter—she knew the ending. The doctor, whose name was Aaron Jacobs, and the chimp named Rachel lived happily ever after.

Rachel likes fairy tales and she likes happy endings. She has the mind of a teenage girl, but the innocent heart of a young chimp.

Sometimes, when Rachel looks at her gnarled brown fingers, they seem alien, wrong, out of place. She remembers having small, pale, delicate hands. Memories lie upon memories, layers upon layers, like the sedimentary rocks of the desert buttes.

Rachel remembers a blonde-haired fair-skinned woman who smelled sweetly of perfume. On a Halloween long ago, this woman (who was, in these memories, Rachel's mother) painted Rachel's fingernails bright red because Rachel was dressed as a gypsy and gypsies liked red. Rachel remembers the woman's hands: white hands with faintly blue veins hidden just beneath the skin, neatly clipped nails painted rose pink.

But Rachel also remembers another mother and another time. Her mother was dark and hairy and smelled sweetly of overripe fruit. She and Rachel lived in a wire cage in a room filled with chimps and she hugged Rachel to her hairy breast whenever any people came into the room. Rachel's mother groomed Rachel constantly, picking delicately through her fur in search of lice that she never found.

Memories upon memories: jumbled and confused, like random pictures clipped from magazines, a bright collage that makes no sense. Rachel remembers cages: cold wire mesh beneath her feet, the smell of fear around her. A man in a white lab coat took her from the arms of her hairy mother and pricked her with needles. She could hear her mother howling, but she could not escape from the man.

Rachel remembers a junior high school dance where she wore a new dress: she stood in a dark corner of the gym for hours, pretending to admire the crepe paper decorations because she felt too shy to search among the crowd for her friends.

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She remembers when she was a young chimp: she huddled with five other adolescent chimps in the stuffy freight compartment of a train, frightened by the alien smells and sounds.

She remembers gym class: gray lockers and ugly gym suits that revealed her skinny legs. The teacher made everyone play softball, even Rachel who was unathletic and painfully shy. Rachel at bat, standing at the plate, was terrified to be the center of attention. "Easy out," said the catcher, a hard-edged girl who ran with the wrong crowd and always smelled of cigarette smoke. When Rachel swung at the ball and missed, the outfielders filled the air with malicious laughter.

Rachel's memories are as delicate and elusive as the dusty moths and butterflies that dance among the rabbit brush and sage. Memories of her girlhood never linger; they land for an instant, then take flight, leaving Rachel feeling abandoned and alone.

Rachel leaves Aaron's body where it is, but closes his eyes and pulls the sheet up over his head. She does not know what else to do. Each day she waters the garden and picks some greens for the rabbits. Each day, she cares for the animals in the lab, bringing them food and refilling their water bottles. The weather is cool, and Aaron's body does not smell too bad, though by the end of the week, a wide line of ants runs from the bed to the open window.

At the end of the first week, on a moonlit evening, Rachel decides to let the animals go free. She releases the rabbits one by one, climbing on a stepladder to reach down into the cage and lift each placid bunny out. She carries each one to the back door, holding it for a moment and stroking the soft warm fur. Then she sets the animal down and nudges it in the direction of the green grass that grows around the perimeter of the fenced garden.

The rats are more difficult to deal with. She manages to wrestle the large rat cage off the shelf, but it is heavier than she thought it would be. Though she slows its fall, it lands on the floor with a crash and the rats scurry to and fro within. She shoves the cage across the linoleum floor, sliding it down the hall, over the doorsill, and onto the back patio. When she opens the cage door, rats burst out like popcorn from a popper, white in the moonlight and dashing in all directions.

Once, while Aaron was taking a nap, Rachel walked along the dirt track that led to the main highway. She hadn't planned on going far. She just wanted to see what the highway looked like, maybe hide near the mailbox and watch a car drive past. She was curious about the outside world and her fleeting fragmentary memories did not satisfy that curiosity.

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She was halfway to the mailbox when Aaron came roaring up in his old jeep. "Get in the car," he shouted at her. "Right now!" Rachel had never seen him so angry. She cowered in the jeep's passenger seat, covered with dust from the road, unhappy that Aaron was so upset. He didn't speak until they got back to the ranch house, and then he spoke in a low voice, filled with bitterness and suppressed rage.

"You don't want to go out there," he said. "You wouldn't like it out there. The world is filled with petty, narrow-minded, stupid people. They wouldn't understand you. And anyone they don't understand, they want to hurt. They hurt anyone who's different. If they know that you're different, they punish you, hurt you. They'd lock you up and never let you go."

He looked straight ahead, staring through the dirty windshield. "It's not like the shows on TV, Rachel," he said in a softer tone. "It's not like the stories in books."

He looked at her then and she gestured frantically. —I'm sorry. I'm sorry.

"I can't protect you out there," he said. "I can't keep you safe."

Rachel took his hand in both of hers. He relented then, stroking her head. "Never do that again," he said. "Never."

Aaron's fear was contagious. Rachel never again walked along the dirt track and sometimes she had dreams about bad people who wanted to lock her in a cage.

Two weeks after Aaron's death, a black-and-white police car drives slowly up to the house. When the policemen knock on the door, Rachel hides behind the couch in the living room. They knock again, try the knob, then open the door, which she had left unlocked.

Suddenly frightened, Rachel bolts from behind the couch, bounding toward the back door. Behind her, she hears one man yell, "My God! It's a gorilla!"

By the time he pulls his gun, Rachel has run out the back door and away into the hills. From the hills she watches as an ambulance drives up and two men in white take Aaron's body away. Even after the ambulance and the police car drive away, Rachel is afraid to go back to the house. Only after sunset does she return.

Just before dawn the next morning, she wakens to the sound of a truck jouncing down the dirt road. She peers out the window to see a pale green pickup. Sloppily stenciled in white on the door are the words: PRIMATE RESEARCH CENTER. Rachel hesitates as the truck pulls up in front of the house. By the time she has decided to flee, two men are getting out of the truck. One of them carries a rifle.

She runs out the back door and heads for the hills, but she is only

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halfway to hiding when she hears a sound like a sharp intake of breath and feels a painful jolt in her shoulder. Suddenly, her legs give way and she is tumbling backward down the sandy slope, dust coating her red-brown fur, her howl becoming a whimper, then fading to nothing at all. She falls into the blackness of sleep.

The sun is up. Rachel lies in a cage in the back of the pickup truck. She is partially conscious and she feels a tingling in her hands and feet. Nausea grips her stomach and bowels. Her body aches.

Rachel can blink, but otherwise she can't move. From where she lies, she can see only the wire mesh of the cage and the side of the truck. When she tries to turn her head, the burning in her skin intensifies. She lies still, wanting to cry out, but unable to make a sound. She can only blink slowly, trying to close out the pain. But the burning and nausea stay.

The truck jounces down a dirt road, then stops. It rocks as the men get out. The doors slam. Rachel hears the tailgate open.

A woman's voice: "Is that the animal the County Sheriff wanted us to pick up?" A woman peers into the cage. She wears a white lab coat and her brown hair is tied back in a single braid. Around her eyes, Rachel can see small wrinkles, etched by years of living in the desert. The woman doesn't look evil. Rachel hopes that the woman will save her from the men in the truck.

"Yeah. It should be knocked out for at least another half hour. Where do you want it?"

"Bring it into the lab where we had the rhesus monkeys. I'll keep it there until I have an empty cage in the breeding area."

Rachel's cage scrapes across the bed of the pickup. She feels each bump and jar as a new pain. The man swings the cage onto a cart and the woman pushes the cart down a concrete corridor. Rachel watches the walls pass just a few inches from her nose.

The lab contains rows of cages in which small animals sleepily move. In the sudden stark light of the overhead fluorescent bulbs, the eyes of white rats gleam red.

With the help of one of the men from the truck, the woman manhandles Rachel onto a lab table. The metal surface is cold and hard, painful against Rachel's skin. Rachel's body is not under her control; her limbs will not respond. She is still frozen by the tranquilizer, able to watch, but that is all. She cannot protest or plead for mercy.

Rachel watches with growing terror as the woman pulls on rubber gloves and fills a hypodermic needle with a clear solution. "Mark down that I'm giving her the standard test for tuberculosis; this eyelid should be checked before she's moved in with the others. I'll add thiabendazole

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to her feed for the next few days to clean out any intestinal worms. And I suppose we might as well de-flea her as well," the woman says. The man grunts in response.

Expertly, the woman closes one of Rachel's eyes. With her open eye, Rachel watches the hypodermic needle approach. She feels a sharp pain in her eyelid. In her mind, she is howling, but the only sound she can manage is a breathy sigh.

The woman sets the hypodermic aside and begins methodically spraying Rachel's fur with a cold, foul-smelling liquid. A drop strikes Rachel's eye and burns. Rachel blinks, but she cannot lift a hand to rub her eye. The woman treats Rachel with casual indifference, chatting with the man as she spreads Rachel's legs and sprays her genitals. "Looks healthy enough. Good breeding stock."

Rachel moans, but neither person notices. At last, they finish their torture, put her in a cage, and leave the room. She closes her eyes, and the darkness returns.

Rachel dreams. She is back at home in the ranch house. It is night and she is alone. Outside, coyotes yip and howl. The coyote is the voice of the desert, wailing as the wind wails when it stretches itself thin to squeeze through a crack between two boulders. The people native to this land tell tales of Coyote, a god who was a trickster, unreliable, changeable, mercurial.

Rachel is restless, anxious, unnerved by the howling of the coyotes. She is looking for Aaron. In the dream, she knows he is not dead, and she searches the house for him, wandering from his cluttered bedroom to her small room to the linoleum-tiled lab.

She is in the lab when she hears something tapping: a small dry scratching, like a wind-blown branch against the window, though no tree grows near the house and the night is still. Cautiously, she lifts the curtain to look out.

She looks into her own reflection: a pale oval face, long blonde hair. The hand that holds the curtain aside is smooth and white with carefully clipped fingernails. But something is wrong. Superimposed on the reflection is another face peering through the glass: a pair of dark brown eyes, a chimp face with red-brown hair and jug-handle ears. She sees her own reflection and she sees the outsider; the two images merge and blur. She is afraid, but she can't drop the curtain and shut the ape face out.

She is a chimp looking in through the cold, bright windowpane; she is a girl looking out; she is a girl looking in; she is an ape looking out. She is afraid and the coyotes are howling all around.

Rachel opens her eyes and blinks until the world comes into focus. The

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pain and tingling has retreated, but she still feels a little sick. Her left eye aches. When she rubs it, she feels a raised lump on the eyelid where the woman pricked her. She lies on the floor of a wire mesh cage. The room is hot and the air is thick with the smell of animals.

In the cage beside her is another chimp, an older animal with scruffy dark brown fur. He sits with his arms wrapped around his knees, rocking back and forth, back and forth. His head is down. As he rocks, he murmurs to himself, a meaningless cooing that goes on and on. On his scalp, Rachel can see a gleam of metal: a permanently implanted electrode protrudes from a shaven patch. Rachel makes a soft questioning sound, but the other chimp will not look up.

Rachel's own cage is just a few feet square. In one corner is a bowl of monkey pellets. A water bottle hangs on the side of the cage. Rachel ignores the food, but drinks thirstily.

Sunlight streams through the windows, sliced into small sections by the wire mesh that covers the glass. She tests her cage door, rattling it gently at first, then harder. It is securely latched. The gaps in the mesh are too small to admit her hand. She can't reach out to work the latch.

The other chimp continues to rock back and forth. When Rachel rattles the mesh of her cage and howls, he lifts his head wearily and looks at her. His red-rimmed eyes are unfocused; she can't be sure he sees her.

—Hello, she gestures tentatively. —What's wrong?

He blinks at her in the dim light. —Hurt, he signs in ASL. He reaches up to touch the electrode, fingering skin that is already raw from repeated rubbing.

—Who hurt you? she asks. He stares at her blankly and she repeats the question. —Who?

—Men, he signs.

As if on cue, there is the click of a latch and the door to the lab opens. A bearded man in a white coat steps in, followed by a clean-shaven man in a suit. The bearded man seems to be showing the other man around the lab. ". . . only preliminary testing, so far," the bearded man is saying. "We've been hampered by a shortage of chimps trained in ASL." The two men stop in front of the old chimp's cage. "This old fellow is from the Oregon center. Funding for the language program was cut back and some of the animals were dispersed to other programs." The old chimp huddles at the back of the cage, eyeing the bearded man with suspicion.

—Hungry? the bearded man signs to the old chimp. He holds up an orange where the old chimp can see it.

—Give orange, the old chimp gestures. He holds out his hand, but comes no nearer to the wire mesh than he must to reach the orange. With the fruit in hand, he retreats to the back of his cage.

The bearded man continues, "This project will provide us with the first

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solid data on neural activity during use of sign language. But we really need greater access to chimps with advanced language skills. People are so damn protective of their animals."

"Is this one of yours?" the clean-shaven man asks, pointing to Rachel. She cowers in the back of the cage, as far from the wire mesh as she can get.

"No, not mine. She was someone's household pet, apparently. The county sheriff had us pick her up." The bearded man peers into her cage. Rachel does not move; she is terrified that he will somehow guess that she knows ASL. She stares at his hands and thinks about those hands putting an electrode through her skull. "I think she'll be put in breeding stock," the man says as he turns away.

Rachel watches them go, wondering at what terrible people these are. Aaron was right: they want to punish her, put an electrode in her head.

After the men are gone, she tries to draw the old chimp into conversation, but he will not reply. He ignores her as he eats his orange. Then he returns to his former posture, hiding his head and rocking himself back and forth.

Rachel, hungry despite herself, samples one of the food pellets. It has a strange medicinal taste, and she puts it back in the bowl. She needs to pee, but there is no toilet and she cannot escape the cage. At last, unable to hold it, she pees in one corner of the cage. The urine flows through the wire mesh to soak the litter below, and the smell of warm piss fills her cage. Humiliated, frightened, her head aching, her skin itchy from the flea spray, Rachel watches as the sunlight creeps across the room.

The day wears on. Rachel samples her food again, but rejects it, preferring hunger to the strange taste. A black man comes and cleans the cages of the rabbits and rats. Rachel cowers in her cage and watches him warily, afraid that he will hurt her, too.

When night comes, she is not tired. Outside, coyotes howl. Moonlight filters in through the high windows. She draws her legs up toward her body, then rests with her arms wrapped around her knees. Her father is dead, and she is a captive in a strange place. For a time, she whimpers softly, hoping to awaken from this nightmare and find herself at home in bed. When she hears the click of a key in the door to the room, she hugs herself more tightly.

A man in green coveralls pushes a cart filled with cleaning supplies into the room. He takes a broom from the cart, and begins sweeping the concrete floor. Over the rows of cages, she can see the top of his head bobbing in time with his sweeping. He works slowly and methodically, bending down to sweep carefully under each row of cages, making a neat pile of dust, dung, and food scraps in the center of the aisle.

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The janitor's name is Jake. He is a middle-aged deaf man who has been employed by the Primate Research Center for the past seven years. He works night shift. The personnel director at the Primate Research Center likes Jake because he fills the federal quota for handicapped employees, and because he has not asked for a raise in five years. There have been some complaints about Jake—his work is often sloppy—but never enough to merit firing the man.

Jake is an unambitious, somewhat slow-witted man. He likes the Primate Research Center because he works alone, which allows him to drink on the job. He is an easy-going man, and he likes the animals. Sometimes, he brings treats for them. Once, a lab assistant caught him feeding an apple to a pregnant rhesus monkey. The monkey was part of an experiment on the effect of dietary restrictions on fetal brain development, and the lab assistant warned Jake that he would be fired if he was ever caught interfering with the animals again. Jake still feeds the animals, but he is more careful about when he does it, and he has never been caught again.

As Rachel watches, the old chimp gestures to Jake. —Give banana, the chimp signs. —Please banana. Jake stops sweeping for a minute and reaches down to the bottom shelf of his cleaning cart. He returns with a banana and offers it to the old chimp. The chimp accepts the banana and leans against the mesh while Jake scratches his fur.

When Jake turns back to his sweeping, he catches sight of Rachel and sees that she is watching him. Emboldened by his kindness to the old chimp, Rachel timidly gestures to him. —Help me.

Jake hesitates, then peers at her more closely. Both his eyes are shot with a fine lacework of red. His nose displays the broken blood vessels of someone who has been friends with the bottle for too many years. He needs a shave. But when he leans close, Rachel catches the scent of whiskey and tobacco. The smells remind her of Aaron and give her courage.

—Please help me, Rachel signs. —I don't belong here.

For the last hour, Jake has been drinking steadily. His view of the world is somewhat fuzzy. He stares at her blearily.

Rachel's fear that he will hurt her is replaced by the fear that he will leave her locked up and alone. Desperately she signs again. —Please please please. Help me. I don't belong here. Please help me go home.

He watches her, considering the situation. Rachel does not move. She is afraid that any movement will make him leave. With a majestic speed dictated by his inebriation, Jake leans his broom on the row of cages behind him and steps toward Rachel's cage again. —You talk? he signs.

—I talk, she signs.

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—Where did you come from?

—From my father's house, she signs. —Two men came and shot me and put me here. I don't know why. I don't know why they locked me in jail.

Jake looks around, willing to be sympathetic, but puzzled by her talk of jail. —This isn't jail, he signs. —This is a place where scientists raise monkeys.

Rachel is indignant. —I am not a monkey, she signs. —I am a girl.

Jake studies her hairy body and her jug-handle ears. —You look like a monkey.

Rachel shakes her head. —No. I am a girl.

Rachel runs her hands back over her head, a very human gesture of annoyance and unhappiness. She signs sadly, —I don't belong here. Please let me out.

Jake shifts his weight from foot to foot, wondering what to do. —I can't let you out. I'll get in big trouble.

—Just for a little while? Please?

Jake glances at his cart of supplies. He has to finish off this room and two corridors of offices before he can relax for the night.

—Don't go, Rachel signs, guessing his thoughts.

—I have work to do.

She looks at the cart, then suggests eagerly, —Let me out and I'll help you work.

Jake frowns. —If I let you out, you will run away.

—No, I won't run. I will help. Please let me out.

—You promise to go back?

Rachel nods.

Warily he unlatches the cage. Rachel bounds out, grabs a whisk broom from the cart, and begins industriously sweeping bits of food and droppings from beneath the row of cages. —Come on, she signs to Jake from the end of the aisle. —I will help.

When Jake pushes the cart from the room filled with cages, Rachel follows him closely. The rubber wheels of the cleaning cart rumble softly on the linoleum floor. They pass through a metal door into a corridor where the floor is carpeted and the air smells of chalk dust and paper.

Offices let off the corridor, each one a small room furnished with a desk, bookshelves, and a blackboard. Jake shows Rachel how to empty the wastebaskets into a garbage bag. While he cleans the blackboards, she wanders from office to office, trailing the trash-filled garbage bag.

At first, Jake keeps a close eye on Rachel. But after cleaning each blackboard, he pauses to refill a cup from the whiskey bottle that he keeps wedged between the Saniflush and the window cleaner. By the

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time he is halfway through the second cup; he is treating her like an old friend, telling her to hurry up so that they can eat dinner.

Rachel works quickly, but she stops sometimes to gaze out the office windows. Outside, moonlight shines on a sandy plain, dotted here and there with scrubby clumps of rabbit brush.

At the end of the corridor is a larger room in which there are several desks and typewriters. In one of the wastebaskets, buried beneath memos and candybar wrappers, she finds a magazine. The title is *Love Confessions* and the cover has a picture of a man and woman kissing. Rachel studies the cover, then takes the magazine, tucking it on the bottom shelf of the cart.

Jake pours himself another cup of whiskey and pushes the cart to another hallway. Jake is working slower now, and as he works he makes humming noises, tuneless sounds that he feels only as pleasant vibrations. The last few blackboards are sloppily done, and Rachel, finished with the wastebaskets, cleans the places that Jake missed.

They eat dinner in the janitor's storeroom, a stuffy windowless room furnished with an ancient grease-stained couch, a battered black-and-white television, and shelves of cleaning supplies. From a shelf, Jake takes the paper bag that holds his lunch: a baloney sandwich, a bag of barbecued potato chips, and a box of vanilla wafers. From behind the gallon jugs of liquid cleanser, he takes a magazine. He lights a cigarette, pours himself another cup of whiskey, and settles down on the couch. After a moment's hesitation, he offers Rachel a drink, pouring a shot of whiskey into a chipped ceramic cup.

Aaron never let Rachel drink whiskey, and she samples it carefully. At first the smell makes her sneeze, but she is fascinated by the way that the drink warms her throat, and she sips some more.

As they drink, Rachel tells Jake about the men who shot her and the woman who pricked her with a needle, and he nods. —The people here are crazy, he signs.

—I know, she says, thinking of the old chimp with the electrode in his head. —You won't tell them I can talk, will you?

Jake nods. —I won't tell them anything.

—They treat me like I'm not real, Rachel signs sadly. Then she hugs her knees, frightened at the thought of being held captive by crazy people. She considers planning her escape: she is out of the cage and she is sure she could outrun Jake. As she wonders about it, she finishes her cup of whiskey. The alochol takes the edge off her fear. She sits close beside Jake on the couch, and the smell of his cigarette smoke reminds her of Aaron. For the first time since Aaron's death she feels warm and happy.

She shares Jake's cookies and potato chips and looks at the *Love Confessions* magazine that she took from the trash. The first story that she

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reads is about a woman named Alice. The headline reads: "I became a Go-go dancer to pay off my husband's gambling debts, and now he wants me to sell my body."

Rachel sympathizes with Alice's loneliness and suffering. Alice, like Rachel, is alone and misunderstood. As Rachel slowly reads, she sips her second cup of whiskey. The story reminds her of a fairy tale: the nice man who rescues Alice from her terrible husband replaces the handsome prince who rescued the princess. Rachel glances at Jake and wonders if he will rescue her from the wicked people who locked her in the cage.

She has finished the second cup of whiskey and eaten half Jake's cookies when Jake says that she must go back to her cage. She goes reluctantly, taking the magazine with her. He promises that he will come for her again the next night, and with that she must be content. She puts the magazine in one corner of the cage and curls up to sleep.

She wakes early in the afternoon. A man in a white coat is wheeling a low cart into the lab.

Rachel's head aches with hangover and she feels sick. As she crouches in one corner of her cage, he stops the cart beside her cage and then locks the wheels. "Hold on there," he mutters to her, then slides her cage onto the cart.

The man wheels her through long corridors, where the walls are cement blocks, painted institutional green. Rachel huddles unhappily in the cage, wondering where she is going and whether Jake will ever be able to find her.

At the end of a long corridor, the man opens a thick metal door and a wave of warm air strikes Rachel. It stinks of chimpanzees, excrement, and rotting food. On either side of the corridor are metal bars and wire mesh. Behind the mesh, Rachel can see dark hairy shadows. In one cage, five adolescent chimps swing and play. In another, two females huddle together, grooming each other. The man slows as he passes a cage in which a big male is banging on the wire with his fist, making the mesh rattle and ring.

"Now, Johnson," says the man. "Cool it. Be nice. I'm bringing you a new little girlfriend."

With a series of hooks, the man links Rachel's cage with the cage next to Johnson's and opens the doors. "Go on, girl," he says. "See the nice fruit." In the cage is a bowl of sliced apples with an attendant swarm of fruit flies.

At first, Rachel will not move into the new cage. She crouches in the cage on the cart, hoping that the man will decide to take her back to the lab. She watches him get a hose and attach it to a water faucet. But she does not understand his intention until he turns the stream of water on

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her. A cold blast strikes her on the back and she howls, fleeing into the new cage to avoid the cold water. Then the man closes the doors, unhooks the cage, and hurries away.

The floor is bare cement. Her cage is at one end of the corridor and two walls are cement block. A door in one of the cement block walls leads to an outside run. The other two walls are wire mesh: one facing the corridor; the other, Johnson's cage.

Johnson, quiet now that the man has left, is sniffing around the door in the wire mesh wall that joins their cages. Rachel watches him anxiously. Her memories of other chimps are distant, softened by time. She remembers her mother; she vaguely remembers playing with other chimps her age. But she does not know how to react to Johnson when he stares at her with great intensity and makes a loud huffing sound. She gestures to him in ASL, but he only stares harder and huffs again. Beyond Johnson, she can see other cages and other chimps, so many that the wire mesh blurs her vision and she cannot see the other end of the corridor.

To escape Johnson's scrutiny, she ducks through the door into the outside run, a wire mesh cage on a white concrete foundation. Outside there is barren ground and rabbit brush. The afternoon sun is hot and all the other runs are deserted until Johnson appears in the run beside hers. His attention disturbs her and she goes back inside.

She retreats to the side of the cage farthest from Johnson. A crudely built wooden platform provides her with a place to sit. Wrapping her arms around her knees, she tries to relax and ignore Johnson. She dozes off for a while, but wakes to a commotion across the corridor.

In the cage across the way is a female chimp in heat. Rachel recognizes the smell from her own times in heat. Two keepers are opening the door that separates the female's cage from the adjoining cage, where a male stands, watching with great interest. Johnson is shaking the wire mesh and howling as he watches.

"Mike here is a virgin, but Susie knows what she's doing," one keeper was saying to the other. "So it should go smoothly. But keep the hose ready."

"Yeah?"

"Sometimes they fight. We only use the hose to break it up if it gets real bad. Generally, they do okay."

Mike stalks into Susie's cage. The keepers lower the cage door, trapping both chimps in the same cage. Susie seems unalarmed. She continues eating a slice of orange while Mike sniffs at her genitals with every indication of great interest. She bends over to let Mike finger her pink bottom, the sign of estrus.

Rachel finds herself standing at the wire mesh, making low moaning

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noises. She can see Mike's erection, hear his grunting cries. He squats on the floor of Susie's cage, gesturing to the female. Rachel's feelings are mixed: she is fascinated, fearful, confused. She keeps thinking of the description of sex in the *Love Confessions* story: When Alice feels Danny's lips on hers, she is swept away by the passion of the moment. He takes her in his arms and her skin tingles as if she were consumed by an inner fire.

Susie bends down and Mike penetrates her with a loud grunt, thrusting violently with his hips. Susie cries out shrilly and suddenly leaps up, knocking Mike away. Rachel watches, overcome with fascination. Mike, his penis now limp, follows Susie slowly to the corner of the cage, where he begins grooming her carefully. Rachel finds that the wire mesh has cut her hands where she gripped it too tightly.

It is night, and the door at the end of the corridor creaks open. Rachel is immediately alert, peering through the wire mesh and trying to see down to the end of the corridor. She bangs on the wire mesh. As Jake comes closer, she waves a greeting.

When Jake reaches for the lever that will raise the door to Rachel's cage, Johnson charges toward him, howling and waving his arms above his head. He hammers on the wire mesh with his fists, howling and grimacing at Jake. Rachel ignores Johnson and hurries after Jake.

Again Rachel helps Jake clean. In the laboratory, she greets the old chimp, but the animal is more interested in the banana that Jake has brought than in conversation. The chimp will not reply to her questions, and after several tries, she gives up.

While Jake vacuums the carpeted corridors, Rachel empties the trash, finding a magazine called *Modern Romance* in the same wastebasket that had provided *Love Confessions*.

Later, in the janitor's lounge, Jake smokes a cigarette, sips whiskey, and flips through one of his own magazines. Rachel reads love stories in *Modern Romance*.

Every once in a while, she looks over Jake's shoulder at grainy pictures of naked women with their legs spread wide apart. Jake looks for a long time at a picture of a blonde woman with big breasts, red fingernails, and purple-painted eyelids. The woman lies on her back and smiles as she strokes the pinkness between her legs. The picture on the next page shows her caressing her own breasts, pinching the dark nipples. The final picture shows her looking back over her shoulder. She is in the position that Susie took when she was ready to be mounted.

Rachel looks over Jake's shoulder at the magazine, but she does not ask questions. Jake's smell began to change as soon as he opened the magazine; the scent of nervous sweat mingles with the aromas of tobacco

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and whiskey. Rachel suspects that questions would not be welcome just now.

At Jake's insistence, she goes back to her cage before dawn.

Over the next week, she listens to the conversations of the men who come and go, bringing food and hosing out the cages. From the men's conversation, she learns that the Primate Research Center is primarily a breeding facility that supplies researchers with domestically bred apes and monkeys of several species. It also maintains its own research staff. In indifferent tones, the men talk of horrible things. The adolescent chimps at the end of the corridor are being fed a diet high in cholesterol to determine cholesterol's effects on the circulatory system. A group of pregnant females are being injected with male hormones to determine how that will affect the female offspring. A group of infants is being fed a low protein diet to determine adverse effects on their brain development.

The men look through her as if she were not real, as if she were a part of the wall, as if she were no one at all. She cannot speak to them; she cannot trust them.

Each night, Jake lets her out of her cage and she helps him clean. He brings treats: barbequed potato chips, fresh fruit, chocolate bars, and cookies. He treats her fondly, as one would treat a precocious child. And he talks to her.

At night, when she is with Jake, Rachel can almost forget the terror of the cage, the anxiety of watching Johnson pace to and fro, the sense of unreality that accompanies the simplest act. She would be content to stay with Jake forever, eating snack food and reading confessions magazines. He seems to like her company. But each morning, Jake insists that she must go back to the cage and the terror. By the end of the first week, she has begun plotting her escape.

Whenever Jake falls asleep over his whiskey, something that happens three nights out of five, Rachel prowls the center alone, surreptitiously gathering things that she will need to survive in the desert: a plastic jug filled with water, a plastic bag of food pellets, a large beach towel that will serve as a blanket on the cool desert nights, a discarded plastic shopping bag in which she can carry the other things. Her best find is a road map on which the Primate Center is marked in red. She knows the address of Aaron's ranch and finds it on the map. She studies the roads and plots a route home. Cross country, assuming that she does not get lost, she will have to travel about fifty miles to reach the ranch. She hides these things behind one of the shelves in the janitor's storeroom.

Her plans to run away and go home are disrupted by the idea that she is in love with Jake, a notion that comes to her slowly, fed by the stories

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in the confessions magazines. When Jake absent-mindedly strokes her, she is filled with a strange excitement. She longs for his company and misses him on the weekends when he is away. She is happy only when she is with him, following him through the halls of the center, sniffing the aroma of tobacco and whiskey that is his own perfume. She steals a cigarette from his pack and hides it in her cage, where she can savor the smell of it at her leisure.

She loves him, but she does not know how to make him love her back. Rachel knows little about love: she remembers a high school crush where she mooned after a boy with a locker near hers, but that came to nothing. She reads the confessions magazines and Ann Landers' column in the newspaper that Jake brings with him each night, and from these sources, she learns about romance. One night, after Jake falls asleep, she types a badly punctuated, ungrammatical letter to Ann. In the letter, she explains her situation and asks for advice on how to make Jake love her. She slips the letter into a sack labeled "Outgoing Mail," and for the next week she reads Ann's column with increased interest. But her letter never appears.

Rachel searches for answers in the magazine pictures that seem to fascinate Jake. She studies the naked women, especially the big-breasted woman with the purple smudges around her eyes.

One night, in a secretary's desk, she finds a plastic case of eyeshadow. She steals it and takes it back to her cage. The next evening, as soon as the Center is quiet, she upturns her metal food dish and regards her reflection in the shiny bottom. Squatting, she balances the eye shadow case on one knee and examines its contents: a tiny makeup brush and three shades of eye shadow—INDIAN BLUE, FOREST GREEN, and WILDLY VIOLET. Rachel chooses the shade labeled WILDLY VIOLET.

Using one finger to hold her right eye closed, she dabs her eyelid carefully with the makeup brush, leaving a gaudy orchid-colored smudge on her brown skin. She studies the smudge critically, then adds to it, smearing the color beyond the corner of her eyelid until it disappears in her brown fur. The color gives her a eye a carnival brightness, a lunatic gaiety. Working with great care, she matches the effect on the other side, then smiles at herself in the glass, blinking coquettishly.

In the other cage, Johnson bares his teeth and shakes the wire mesh. She ignores him.

When Jake comes to let her out, he frowns at her eyes. —Did you hurt yourself? he asks.

—No, she says. Then, after a pause, —Don't you like it?

Jake squats beside her and stares at her eyes. Rachel puts a hand on his knee and her heart pounds at her own boldness. —You are a very strange monkey, he signs.

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Rachel is afraid to move. Her hand on his knee closes into a fist; her face folds in on itself, puckering around the eyes.

Then, straightening up, he signs, —I liked your eyes better before.

He likes her eyes. She nods without taking her eyes from his face. Later, she washes her face in the women's restroom, leaving dark smudges the color of bruises on a series of paper towels.

Rachel is dreaming. She is walking through the Painted Desert with her hairy brown mother, following a red rock canyon that Rachel somehow knows will lead her to the Primate Research Center. Her mother is lagging behind: she does not want to go to the center; she is afraid. In the shadow of a rock outcropping, Rachel stops to explain to her mother that they must go to the center because Jake is at the center.

Rachel's mother does not understand sign language. She watches Rachel with mournful eyes, then scrambles up the canyon wall, leaving Rachel behind. Rachel climbs after her mother, pulling herself over the edge in time to see the other chimp loping away across the wind-blown red cinder-rock and sand.

Rachel bounds after her mother, and as she runs she howls like an abandoned infant chimp, wailing her distress. The figure of her mother wavers in the distance, shimmering in the heat that rises from the sand. The figure changes. Running away across the red sands is a pale blonde woman wearing a purple sweatsuit and jogging shoes, the sweet-smelling mother that Rachel remembers. The woman looks back and smiles at Rachel. "Don't howl like an ape, daughter," she calls. "Say Mama."

Rachel runs silently, dream running that takes her nowhere. The sand burns her feet and the sun beats down on her head. The blonde woman vanishes in the distance, and Rachel is alone. She collapses on the sand, whimpering because she is alone and afraid.

She feels the gentle touch of fingers grooming her fur, and for a moment, still half asleep, she believes that her hairy mother has returned to her. She opens her eyes and looks into a pair of dark brown eyes, separated from her by wire mesh. Johnson. He has reached through a gap in the fence to groom her. As he sorts through her fur, he makes soft cooing sounds, gentle comforting noises.

Still half asleep, she gazes at him and wonders why she was so fearful. He does not seem so bad. He grooms her for a time, and then sits nearby, watching her through the mesh. She brings a slice of apple from her dish of food and offers it to him. With her free hand, she makes the sign for apple. When he takes it, she signs again: apple. He is not a particularly quick student, but she has time and many slices of apple.

All Rachel's preparations are done, but she cannot bring herself to

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leave the center. Leaving the center means leaving Jake, leaving potato chips and whiskey, leaving security. To Rachel, the thought of love is always accompanied by the warm taste of whiskey and potato chips.

Some nights, after Jake is asleep, she goes to the big glass doors that lead to the outside. She opens the doors and stands on the steps, looking down into the desert. Sometimes a jackrabbit sits on its haunches in the rectangles of light that shine through the glass doors. Sometimes she sees kangaroo rats, hopping through the moonlight like rubber balls bouncing on hard pavement. Once, a coyote trots by, casting a contemptuous glance in her direction.

The desert is a lonely place. Empty. Cold. She thinks of Jake snoring softly in the janitor's lounge. And always she closes the door and returns to him.

Rachel leads a double life: janitor's assistant by night, prisoner and teacher by day. She spends her afternoons drowsing in the sun and teaching Johnson new signs.

On a warm afternoon, Rachel sits in the outside run, basking in the sunlight. Johnson is inside, and the other chimps are quiet. She can almost imagine she is back at her father's ranch, sitting in her own yard. She naps and dreams of Jake.

She dreams that she is sitting in his lap on the battered old couch. Her hand is on his chest: a smooth pale hand with red-painted fingernails. When she looks at the dark screen of the television set, she can see her reflection. She is a thin teenager with blonde hair and blue eyes. She is naked.

Jake is looking at her and smiling. He runs a hand down her back and she closes her eyes in ecstacy.

But something changes when she closes her eyes. Jake is grooming her as her mother used to groom her, sorting through her hair in search of fleas. She opens her eyes and sees Johnson, his diligent fingers searching through her fur, his intent brown eyes watching her. The reflection on the television screen shows two chimps, tangled in each others' arms.

Rachel wakes to find that she is in heat for the first time since she came to the center. The skin surrounding her genitals is swollen and pink.

For the rest of the day, she is restless, pacing to and fro in her cage. On his side of the wire mesh wall, Johnson is equally restless, following her when she goes outside, sniffing long and hard at the edge of the barrier that separates him from her.

That night, Rachel goes eagerly to help Jake clean. She follows him closely, never letting him get far from her. When he is sweeping, she trots after him with the dustpan and he almost trips over her twice. She keeps waiting for him to notice her condition, but he seems oblivious.

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As she works, she sips from a cup of whiskey. Excited, she drinks more than usual, finishing two full cups. The liquor leaves her a little disoriented, and she sways as she follows Jake to the janitor's lounge. She curls up close beside him on the couch. He relaxes with his arms resting on the back of the couch, his legs stretching out before him. She moves so that she presses against him.

He stretches, yawns, and rubs the back of his neck as if trying to rub away stiffness. Rachel reaches around behind him and begins to gently rub his neck, reveling in the feel of his skin, his hair against the backs of her hands. The thoughts that hop and skip through her mind are confusing. Sometimes it seems that the hair that tickles her hands is Johnson's; sometimes, she knows it is Jake's. And sometimes it doesn't seem to matter. Are they really so different? They are not so different.

She rubs his neck, not knowing what to do next. In the confessions magazines, this is where the man crushes the woman in his arms. Rachel climbs into Jake's lap and hugs him, waiting for him to crush her in his arms. He blinks at her sleepily. Half asleep, he strokes her, and his moving hand brushes near her genitals. She presses herself against him, making a soft sound in her throat. She rubs her hip against his crotch, aware now of a slight change in his smell, in the tempo of his breathing. He blinks at her again, a little more awake now. She bares her teeth in a smile and tilts her head back to lick his neck. She can feel his hands on her shoulders, pushing her away, and she knows what he wants. She slides from his lap and turns, presenting him with her pink genitals, ready to be mounted, ready to have him penetrate her. She moans in anticipation, a low inviting sound.

He does not come to her. She looks over her shoulder and he is still sitting on the couch, watching her through half-closed eyes. He reaches over and picks up a magazine filled with pictures of naked women. His other hand drops to his crotch and he is lost in his own world.

Rachel howls like an infant who has lost its mother, but he does not look up. He is staring at the picture of the blonde woman.

Rachel runs down dark corridors to her cage, the only home she has. When she reaches her corridor, she is breathing hard and making small lonely whimpering noises. In the dimly lit corridor, she hesitates for a moment, staring into Johnson's cage. The male chimp is asleep. She remembers the touch of his hands when he groomed her.

From the corridor, she lifts the gate that leads into Johnson's cage and enters. He wakes at the sound of the door and sniffs the air. When he sees Rachel, he stalks toward her, sniffing eagerly. She lets him finger her genitals, sniff deeply of her scent. His penis is erect and he grunts in excitement. She turns and presents herself to him and he mounts her, thrusting deep inside. As he penetrates, she thinks, for a moment, of

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Jake and of the thin blonde teenage girl named Rachel, but then the moment passes. Almost against her will she cries out, a shrill exclamation of welcoming and loss.

After he withdraws his penis, Johnson grooms her gently, sniffing her genitals and softly stroking her fur. She is sleepy and content, but she knows that she cannot delay.

Johnson is reluctant to leave his cage, but Rachel takes him by the hand and leads him to the janitor's lounge. His presence gives her courage. She listens at the door and hears Jake's soft breathing. Leaving Johnson in the hall, she slips into the room. Jake is lying on the couch, the magazine draped over his legs. Rachel takes the equipment that she has gathered and stands for a moment, staring at the sleeping man. His baseball cap hangs on the arm of a broken chair, and she takes that to remember him by.

Rachel leads Johnson through the empty halls. A kangaroo rat, collecting seeds in the dried grass near the glass doors, looks up curiously as Rachel leads Johnson down the steps. Rachel carries the plastic shopping bag slung over her shoulder. Somewhere in the distance, a coyote howls, a long yapping wail. His cry is joined by others, a chorus in the moonlight.

Rachel takes Johnson by the hand and leads him into the desert.

A cocktail waitress, driving from her job in Flagstaff to her home in Winslow, sees two apes dart across the road, hurrying away from the bright beams of her headlights. After wrestling with her conscience (she does not want to be accused of drinking on the job), she notifies the county sheriff.

A local newspaper reporter, an eager young man fresh out of journalism school, picks up the story from the police report and interviews the waitress. Flattered by his enthusiasm for her story and delighted to find a receptive ear, she tells him details that she failed to mention to the police: one of the apes was wearing a baseball cap and carrying what looked like a shopping bag.

The reporter writes up a quick humorous story for the morning edition, and begins researching a feature article to be run later in the week. He knows that the newspaper, eager for news in a slow season, will play a human-interest story up big—kind of *Lassie, Come Home* with chimps.

Just before dawn, a light rain begins to fall, the first rain of spring. Rachel searches for shelter and finds a small cave formed by three tumbled boulders. It will keep off the rain and hide them from casual observers. She shares her food and water with Johnson. He has followed her closely all night, seemingly intimidated by the darkness and the

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howling of distant coyotes. She feels protective toward him. At the same time, having him with her gives her courage. He knows only a few gestures in ASL, but he does not need to speak. His presence is comfort enough.

Johnson curls up in the back of the cave and falls asleep quickly. Rachel sits in the opening and watches dawnlight wash the stars from the sky. The rain rattles against the sand, a comforting sound. She thinks about Jake. The baseball cap on her head still smells of his cigarettes, but she does not miss him. Not really. She fingers the cap and wonders why she thought she loved Jake.

The rain lets up. The clouds rise like fairy castles in the distance and the rising sun tints them pink and gold and gives them flaming red banners. Rachel remembers when she was younger and Aaron read her the story of Pinnochio, the little puppet who wanted to be a real boy. At the end of his adventures, Pinnochio, who has been brave and kind, gets his wish. He becomes a real boy.

Rachel had cried at the end of the story and when Aaron asked why, she had rubbed her eyes on the backs of her hairy hands. —I want to be a real girl, she signed to him.—A real girl.

"You are a real girl," Aaron had told her, but somehow she had never believed him.

The sun rises higher and illuminates the broken rock turrets of the desert. There is a magic in this barren land of unassuming grandeur. Some cultures send their young people to the desert to seek visions and guidance, searching for true thinking spawned by the openness of the place, the loneliness, the beauty of emptiness.

Rachel drowses in the warm sun and dreams a vision that has the clarity of truth. In the dream, her father comes to her. "Rachel," he says to her, "it doesn't matter what anyone thinks of you. You're my daughter."

—I want to be a real girl, she signs.

"You *are* real," her father says. "And you don't need some two-bit drunken janitor to prove it to you." She knows she is dreaming, but she also knows that her father speaks the truth. She is warm and happy and she doesn't need Jake at all. The sunlight warms her and a lizard watches her from a rock, scurrying for cover when she moves. She picks up a bit of loose rock that lies on the floor of the cave. Idly, she scratches on the dark red sandstone wall of the cave. A lopsided heart shape. Within it, awkwardly printed: Rachel and Johnson. Between them, a plus sign. She goes over the letters again and again, leaving scores of fine lines on the smooth rock surface. Then, late in the morning, soothed by the warmth of the day, she sleeps.

* * *

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Shortly after dark, an elderly rancher in a pickup truck spots two apes in a remote corner of his ranch. They run away and lose him in the rocks, but not until he has a good look at them. He calls the police, the newspaper, and the Primate Center.

The reporter arrives first thing the next morning, interviews the rancher, and follows the men from the Primate Center as they search for evidence of the chimps. They find monkey shit near the cave, confirming that the runaways were indeed nearby. The news reporter, an eager and curious young man, squirms on his belly into the cave and finds the names scratched on the cave wall. He peers at it. He might have dismissed them as the idle scratchings of kids, except that the names match the names of the missing chimps. "Hey," he called to his photographer, "Take a look at this."

The next morning's newspaper displays Rachel's crudely scratched letters. In a brief interview, the rancher mentioned that the chimps were carrying bags. "Looked like supplies," he said. "They looked like they were in for a long haul."

On the third day, Rachel's water runs out. She heads toward a small town, marked on the map. They reach it in the early morning—thirst forces them to travel by day. Beside an isolated ranch house, she finds a faucet. She is filling her bottle when Johnson grunts in alarm.

A dark-haired woman watches from the porch of the house. She does not move toward the apes, and Rachel continues filling the bottle. "It's all right, Rachel," the woman, who has been following the story in the papers, calls out. "Drink all you want."

Startled, but still suspicious, Rachel caps the bottle and, keeping her eyes on the woman, drinks from the faucet. The woman steps back into the house. Rachel motions Johnson to do the same, signaling for him to hurry and drink. She turns off the faucet when he is done.

They are turning to go when the woman emerges from the house carrying a plate of tortillas and a bowl of apples. She sets them on the edge of the porch and says, "These are for you."

The woman watches through the window as Rachel packs the food into her bag. Rachel puts away the last apple and gestures her thanks to the woman. When the woman fails to respond to the sign language, Rachel picks up a stick and writes in the sand of the yard. "THANK YOU," Rachel scratches, then waves good-bye and sets out across the desert. She is puzzled, but happy.

The next morning's newspaper includes an interview with the dark-haired woman. She describes how Rachel turned on the faucet and turned

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it off when she was through, how the chimp packed the apples neatly in her bag and wrote in the dirt with a stick.

The reporter also interviews the director of the Primate Research Center. "These are animals," the director explains angrily. "But people want to treat them like they're small hairy people." He describes the Center as "primarily a breeding center with some facilities for medical research." The reporter asks some pointed questions about their acquisition of Rachel.

But the biggest story is an investigative piece. The reporter reveals that he has tracked down Aaron Jacobs' lawyer and learned that Jacobs left a will. In this will, he bequeathed all his possessions—including his house and surrounding land—to "Rachel, the chimp I acknowledge as my daughter."

The reporter makes friends with one of the young women in the typing pool at the research center, and she tells him the office scuttlebutt: people suspect that the chimps may have been released by a deaf and drunken janitor, who was subsequently fired for negligence. The reporter, accompanied by a friend who can communicate in sign language, finds Jake in his apartment in downtown Flagstaff.

Jake, who has been drinking steadily since he was fired, feels betrayed by Rachel, by the Primate Center, by the world. He complains at length about Rachel: they had been friends, and then she took his baseball cap and ran away. He just didn't understand why she had run away like that.

"You mean she could talk?" the reporter asks through his interpreter.

—Of course she can talk, Jake signs impatiently. —She is a smart monkey.

The headlines read: "Intelligent chimp inherits fortune!" Of course, Aaron's bequest isn't really a fortune and she isn't just a chimp, but close enough. Animal rights activists rise up in Rachel's defense. The case is discussed on the national news. Ann Landers reports receiving a letter from a chimp named Rachel; she had thought it was a hoax perpetrated by the boys at Yale. The American Civil Liberties Union assigns a lawyer to the case.

By day, Rachel and Johnson sleep in whatever hiding places they can find: a cave; a shelter built for range cattle; the shell of an abandoned car, rusted from long years in a desert gully. Sometimes Rachel dreams of jungle darkness, and the coyotes in the distance become a part of her dreams, their howling becomes the cries of fellow apes.

The desert and the journey have changed her. She is wiser, having passed through the white-hot love of adolescence and emerged on the

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other side. She dreams, one day, of the ranch house. In the dream, she has long blonde hair and pale white skin. Her eyes are red from crying and she wanders the house restlessly, searching for something that she has lost. When she hears coyotes howling, she looks through a window at the darkness outside. The face that looks in at her has jug-handle ears and shaggy hair. When she sees the face, she cries out in recognition and opens the window to let herself in.

By night, they travel. The rocks and sands are cool beneath Rachel's feet as she walks toward her ranch. On television, scientists and politicians discuss the ramifications of her case, describe the technology uncovered by investigation of Aaron Jacobs' files. Their debates do not affect her steady progress toward her ranch or the stars that sprinkle the sky above her.

It is night when Rachel and Johnson approach the ranchhouse. Rachel sniffs the wind and smells automobile exhaust and strange humans. From the hills, she can see a small camp beside a white van marked with the name of a local television station. She hesitates, considering returning to the safety of the desert. Then she takes Johnson by the hand and starts down the hill. Rachel is going home. ●

LETTER TO A GRANDCHILD

Apella, you were born after the toxic rains,
and the seas rose under greenhouse skies.
Your father ferried rare animals while
your mother helped redesign irradiated soils
into foothills on the decks of our York.
Ten of Fuller's floating arcologies
were built per continent, by your fifteenth
birthday they needed but ten for the world.
And just the two survive now, ours and Kiev.
As I stand on the top deck of this other city,
as this leviathan ship drifts by York,
I have decided to stay over here.
The Kievites need an expert in soft knowledge.
I know you have a man to keep you.
I know this won't be hard for you.
But for me it's different; you see—
I feel like an astronaut here on top deck
looking back at my old world from the new.
Love, Elizabeth.

—Robert Frazier

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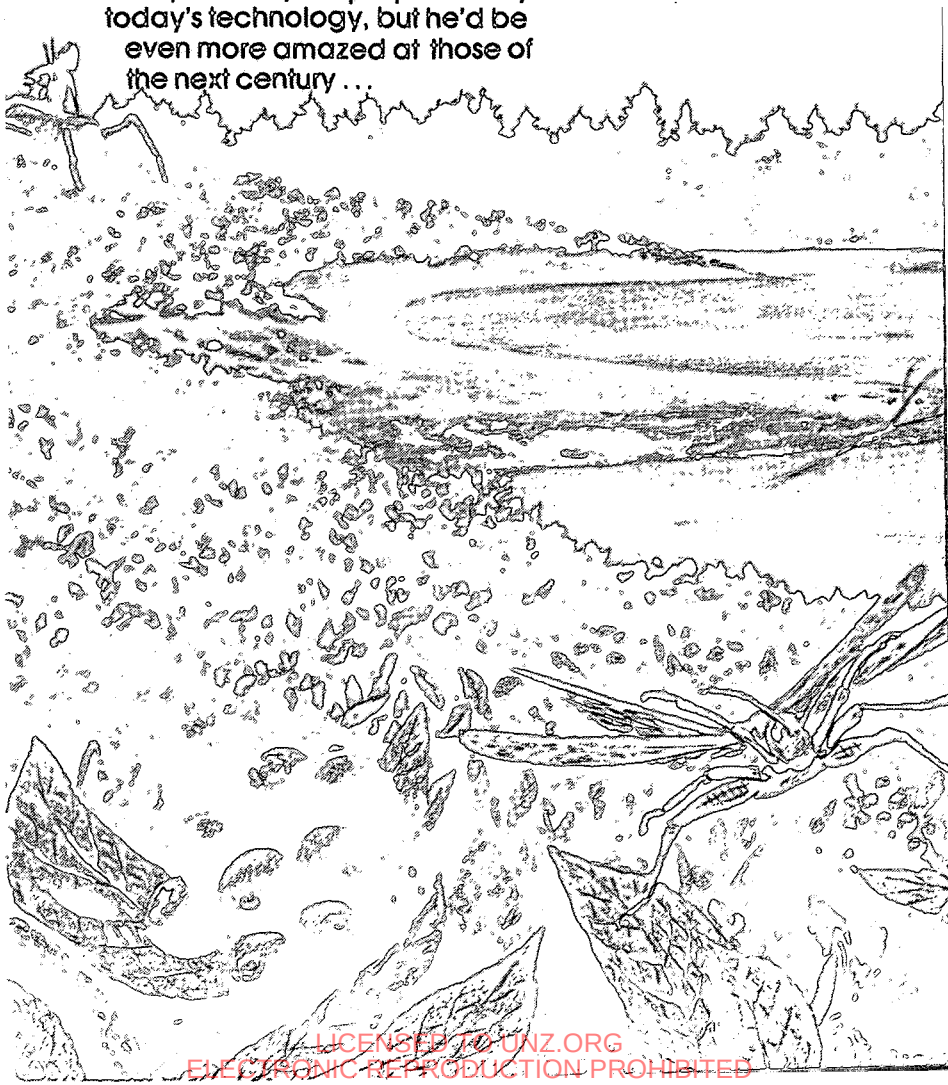
A fisherman of fifty years ago would probably be perplexed by today's technology, but he'd be even more amazed at those of the next century . . .



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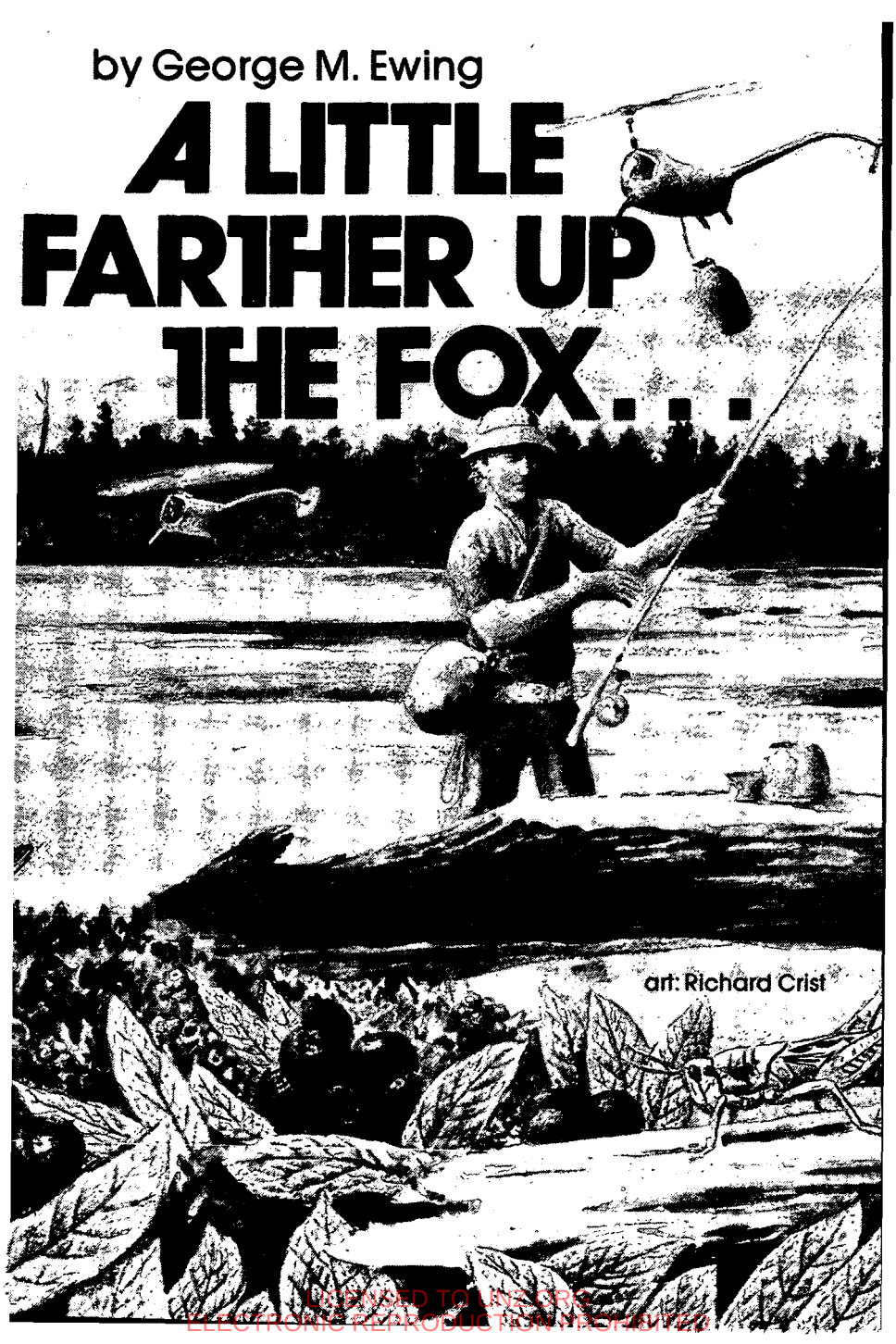
by George M. Ewing

A LITTLE FARTHER UP THE FOX...



art: Richard Crist

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Tom Pachel leaned forward in his seat as the train went into eddy braking. The wheels dropped down onto the rails with a clicking roar reminiscent of childhood toy electrics. The car shuddered and squeaked to a stop, and the door beside his row of seats unsealed itself and opened. Tom's ears popped slightly with the change in pressure. He released the harness, got his backpack and lucky fishing hat from the overhead bay, and stepped off the train onto the wooden platform.

The train resealed itself immediately, and rattled off down the roadbed, boosting back up onto its maglev cushion with a deep humming sound. It disappeared into the blueberry flats around a steeply-banked but gentle curve. A European-style "BOMP—Beep!" sounded back through the haze, and all was quiet. Tom stared at the smoke in the middle distance. Every thirty or forty years, some fool forest fire burned down the town of Seney again. They ought to have changed the name to "Phoenix."

The railroad station was just a prefab cubicle, and there were only a couple of dozen houses in sight, a mixture of older log cabins and chalets with clusters of new, low-cost foamdomes, mostly government-subsidized Indian and Geezer housing. Four other men had gotten off the train on the other side of the rails, another fisherman or camper, and three firefighters with Nomex flame suits, hard hats and large bundles of equipment. The firefighters all piled into a waiting jeep and drove off in a flurry of dust, grasshoppers, and two-way radio squawks.

Tom's right hand automatically checked the 'phone pocket on the side of his pack. The niche was tightly packed with a half-kee rectangular tin of Polish bacon. He had deliberately left the phone and his pocket terminal home this trip. There was no point in roughing it on a trout stream up in the Upper Peninsula and then taking a lot of extraneous gadgetry along. You might as well park a land yacht at a numbered site on the Watanabe, and fish out a mosquito-proof grommet in the side of the air–conditioned flying bridge. Some parts of the Watanabe weren't bad. There were over two hundred klicks of artificial trout stream coiled into the big park and the parts away from the campgrounds where you had to walk had some good fishing.

Tom crossed over the wooden railroad bridge, wondering if it was the same bridge as in the famous short story. Probably not, but it could have been. The rails were continuously welded now, but the crossties were ancient, stained with generations of soot and creosote. A half meter figure-eight of amber Kevlar was securely nailed to every third tie, covering the superconducting loops for the maglev. A faint, harsh, pinging noise wasped at his skull as he crossed the bridge. That was the ultrasonic field that kept stray animals off the tracks, the "Annoyatron," the railroad men called it.

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He looked down into the Fox River under the bridge, to see if there would be trout lurking in the shadows, as in the story. He couldn't see any, though there were a few tiny, circular ripples, minnows feeding, perhaps, or water bugs. The warden at the gate was a young woman with a sunburned face and a rumpled green uniform. She checked the serial number on his license against a computer list, and handed him a fistful of conservation leaflets.

"Been busy?" Tom pocketed the literature; it was the same pile of stuff he'd got in the mail when the lottery computer selected his application for this particular stream. He knew it all by heart.

"Not really. Only one other fisherman in your sector. All the media big shots and rich fudgies are over on the Big Two Hearted for the Hemingway centennial."

"A lot they know." Tom grinned at the warden, and she returned a cynical half-smile. On the wall of the guard shack behind her was a C.H.O.M.P. Xerox of the November 18, 1973 issue of the Detroit Free Press. The Hoornstra cover painting showed a subliminal, bearded face of Papa Hemingway peering out of the ripples on a trout stream. The rest of the clippings were under a sun-faded sheet of plastic, but Tom knew them all by heart, too. Hemingway, of course, had written about the Fox. The "Big Two Hearted" title sounded much sexier to a prewar slick magazine editor with money to spend.

The warden waved a weapons detector wand around him in a perfunctory fashion, nodded at the green readout on the handle, and activated his license. He was "go" for the full seven days of his allocation. Tom passed through the gate in the wire fence and began walking, first following the footpath along the river, and then striking out through the ferns and scrub blueberry bushes. The reindeer moss was like a luxury carpet in the moist low spots, but dry and crunchy on the higher ground, like walking on a layer of shredded wheat.

The afternoon sun was hot. Hot and dry, with the moss crunching underfoot. The woods were as dry as gunpowder, though there was still plenty of water in the river. He glanced at the LCD thermal readout in the brim of his fishing hat. It was over thirty degrees. He thought about the city. Chicago in August. The mayor had scheduled a perfect twenty-one in the Daleydome, a degree or two more in the smaller Niles and Winnetka domes farther north, with an absolutely even 47 per cent humidity.

Tom had walked a couple of klicks from the railroad. Every few minutes he caught a faint tang of smoke in the air, and once he heard the chucka-chucka sound of a big chopper, off somewhere in the haze. The ferns were thicker now, and a couple of times he spotted charred pine stumps ov-

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ergrown with blueberries, a souvenir from the last forest fire, or maybe the one before that.

The next stump was nearly covered with ripe blueberries. Tom stopped, and shrugged off the pack. He pulled a small plastic bag from one of the side pockets. He got out his PermaCig. The colored stripes on the filter told him it was still set to simulate a 1950s Lucky Strike. He set the timer for a four minute burn, screwed down the sparkproof screen, and triggered the igniter squib. He set the pack down on top of the stump, and squatted on his heels. He filled the bag with ripe blueberries while he smoked.

He sealed the bag and stuffed it back in the pack. The cigarette came to the end of its allotted time, and shut down with a click. Tom sat on the moss, and picked another handful of the berries. He munched them to kill the leftover tobacco taste. A grasshopper lit on the top of the pack, next to the pencil-sized NavSat antenna. It was a perfectly normal grasshopper, greenish brown with a lighter abdomen. Hemingway's grasshoppers had been burned black by the fire. It was probably symbolic of something or other, the Italian towns destroyed in World War I, something like that. The grasshopper nibbled speculatively at the lightweight Boroceram frame of the pack, and then jumped, fluttering off into the sweet fern.

Tom thought briefly of supper, and glanced at the watch display in the brim of his hat. He rummaged in the pack. He got a frozen steak out of a cryo bag, and stuffed it into an outside pocket to thaw in just its plastic wrapper. He handled the flat, heavy package with a handkerchief to keep from burning his fingers. He sealed the pack again, and wiped his face with the chilled handkerchief.

Tom shrugged the pack back on, and got reluctantly to his feet. He put first one foot and then the other up on the stump, and adjusted his hiking shoes. He added a couple of hundred grams to the compression rebound on his right insole, and took a few degrees off the pronation adjustments on each heel. He returned the PermaCig to its safety pocket, and set off again, parallel to the river a half klick away.

Tom climbed a low hill with a loose clump of mixed jackpines and poplar. The pines were set in neat rows, remnants of some big reforestation project in the past. The poplars had crowded in later. On the other side of the hill was a long sloping meadow, open all the way to the next bend in the river. There was a small rise about a hundred meters from the riverbank, with scattered larger pines. It was an ideal campsite. There was already a small tent pitched on the soft moss between the two best trees. Tom smelled fresh woodsmoke. It was from the other fisherman's campfire, not the stale, dusty whiffs of smoke he'd been getting all day from the Seney fire.

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Tom unfolded his lightweight glasses. He adjusted them for regular visible light, and looked over the camp carefully. It was a lovingly reconstructed camp. The tent was an antique canvas pup tent, suspended between the two pine trees on a piece of actual manila rope. The pack ought to be hanging on a nail in the tree trunk to the right. He searched for a second before he found it. God, it was a monster! It looked like it weighed thirty-five or forty kee, even without the tent! The fisherman was happily attacking a pine stump with a wood-handled axe. Tom fumbled with the zoom on the glasses, and then zeroed in on the fisherman. He was a young man in his twenties, with blandly Oriental features, probably Japanese or Korean. His getup was right out of a museum. The doughboy surplus khaki shirt alone would be worth a small fortune to a military buff or movie costume company. The man was smoking a paper cigarette, and part of the pack showed under the pocket flap. Egyptian Deities, circa 1920 or so!

Tom pocketed the glasses, and stepped back out of sight among the poplars. He consulted his satellite photomap thoughtfully, suppressing the urge to have another long suck on the PermaCig. He studied the next few kilometers of the stream, and found another small meadow, up past where the river looped through the first big swampy stretch. He consulted the compass display and the digital clock on his hat brim. He waved an unseen salute at the kid with the axe, put away the map, and set out across the blueberry flats again. If he stuck with it, he'd still have time to make camp before dark, a few klicks farther up the Fox.

It was after 2100 by his hat brim when Tom broke out of the last fringes of the cedar swamp. He crossed another ridge with rows of planted pines, and looked down into the clearing. The shape of the river bend was deceptively different from the trace on the photo. He made a note to ask for an early winter photo as well, next time. The river contours would show a lot better from space when the foliage was off the poplars. The clearing was smaller, not quite so much like the one in the story, but it was perfect for a camp. It was 2150 as he stepped over a small spring and onto the moss of a clear space. He stood overlooking a wide spot in the river.

Tent first, he thought. There'd be light in the sky for quite a while yet this far north, even in August. He unrolled the pentagonal tent from its flashlight-sized tube, and spread it out carefully. The film sparked and crackled under his hands. He stuck the five memory wire tent pins though the grommets, like sticking thin knitting needles deep down into the moss. He took a butane lighter from his pocket, and touched the flame quickly to the tabs on the top of the pins. They turned instantly into corkscrews, drawing the five corners of the tent floor down through the moss tight into the dirt below.

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He scooped out a shallow depression in the dirt a couple of meters in front of where the tent door would be, and laid in a reflective film liner a bit bigger than his handkerchief. He pulled some pieces of pine from a stump with his hands, added a strip of birchbark, and started it with his lighter. There was an old beech tree near the spring, and he gathered a dozen dead branches where the silvery bark was starting to flake away from the wood. They were hard, dry, and seasoned, three or four centimeters thick. Tom's cutter was simplicity itself, two cheap synthetic sapphire bars the size of pencils, and a half meter of high density fishing leader. It cut through the seasoned wood like a wire through tough cheese, but you had to be careful with it. It was just as dangerous and useful as that Japanese kid's axe, but it only weighed a couple of hundred grams.

Tom stacked the pieces of wood beside the fire neatly, like a display of policeman's billy clubs, and added a couple of the thinner ones to the flames. Suddenly an unpleasant thought came to him. He looked instinctively straight up into the sky. It was still light in the southwest, but beginning to darken. "Jeez!" he said aloud. Quickly, he got the camp permit out of his pack. He used his pocket knife to cut a small sapling the size of a broomstick, and whittled both ends sharp with hurried cuts. He walked a few meters out into the open away from the trees and the tent. He jammed the pointed stick deep through the soft moss and down into the dirt. He twisted and thrust until the stick was solidly anchored. He piled more clumps of moss and dirt around the base to make sure.

He hung the heavy cardboard and plastic permit on the top of the stick, pulled out on the tinfoil strips of the antenna until it was fully deployed, and pulled the plastic tab on the front of the permit to arm the transponder. Relieved, he hurried back to the fire and added more sticks, building up a crosshatch grid of seasoned beech that would burn down quickly into perfect cooking coals. That could have been close. He was getting hungry, and it would have been easy to forget the permit until after supper, or maybe even completely! Nothing like sitting around a blazing campfire that could probably be seen on the moon, fat, dumb, and happy, munching a steak dinner, in the midst of a forest fire alert! Twenty or thirty thousand liters of cold water and smelly borate chemicals all over the camp could spoil the whole evening. Some tired and grouchy chopper pilot would probably think it extremely funny! They might not actually dump chemicals this close to the stream. They could do worse; they could pull his license.

Tom added another layer of beech sticks, and set the folding wire grid over the fire. He got the plastic water bag, and headed for the spot where the spring flowed into the river. There were circular ripples on the surface of the wide spot in the stream. Small trout were rising after insects. The spring was icy cold. The bag filled with a great deal of bubbling and

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gurgling noise. He started back toward the fire, the basketball-sized bag of water jiggling and gurgling under his arm on its carrying strap. He stepped on an orange-yellow mushroom, and saw there were dozens more in the grass. He set the bag of icy water next to the pile of firewood, and went back with his pocketknife. He half filled his hat with the mushrooms, cutting off the stems underneath the surface layer of moss and pine needles.

Tom washed the mushrooms in the stream, and hurried back to the fire. It was starting to get dark, and he was really hungry. He sliced the mushrooms lengthwise, and piled them in his small plastic skillet. They were Dutch golds, *C. Cibarius,* the best of the late summer chanterelles. He took a pat of butter out of the cryo bag, and dropped it into the skillet. It shattered into a dozen frosty pieces. He set the pan of mushrooms on the corner of the grill. The steak in his pack was partly thawed, but still had frosty spots. He poured a few drops of the melting butter onto the steak and rubbed it in with his fingertips. The coals were nearly perfect. He poked the glowing bed with a stick, and then flopped the steak onto the grill.

He got his plastic plate out of the pack, and his big polycarbonate beer stein. He set the plate aside, and filled the stein with icy water from the bag. He got the box of beer tabs out of the pack, and sorted quickly through the colored packets. He pulled out a silver and blue packet, an Australian lager. He tore the corner off the bottom half of the foil packet, and let the pure alcohol dribble into the cold water. Then he opened the top half, and took out the mottled yellow disc the size of a poker chip. He dropped it into the stein, and watched it fizz through the clear plastic. "Fair dinkum, Mite!" he said.

The mushrooms were really starting to sizzle now. Tom got his Nylon pancake turner out and stirred the slices carefully. Then he flipped the steak over, and got his fork and spoon from the Velcro holster on his shin, just above his sock. "Eat your heart out, Shukov," he said. He ate the steak and the mushrooms quickly, sopping up the mushroom juice and butter with a piece of bread. He filled a smaller plastic bag with water, and set it on the grill to boil for coffee.

Tom got out the PermaCig. He set the controls for a mild Tampa cigar, and set the timer for a luxuriously long burn. The water in the bag on the grill was boiling now, and the little red indicator tab popped out on the side of the high-temperature plastic. He finished the beer, and mixed himself a generous cup of instant coffee in the same stein. He used the rest of the hot water to rinse off his plate and the mushroom pan, and put them away still warm. He threw the lemon-size tent battery into the embers to charge, and settled back with his coffee, cigar, and half of a good Canadian chocolate bar. He slapped at a mosquito and savored the

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mild smoke. A large fish splashed in the water along the far bank of the river. Two more mosquitoes whizzed past him and sniffed around the edges of the campfire, drawn to the warmth and the carbon dioxide.

Tom sighed, and used a stick to poke the battery out of the fire. The case was glowing a bright red, fully charged. He lit a mosquito tab with a stick from the fire, and threw another handful of beech on the coals. He got out his sleeping bag, and then hung the pack up on a stub branch of the nearest pine tree. The pyrethrin smoke from the mosquito tab was sharp and pungent, like marijuana. He picked up the tent battery, now just warm in his hand. He plugged in the tent umbilical, and snapped the switch with his thumb. There was a soft crackling sound, and the tent popped up, a perfect icosahedron, two meters on a side. The blue sparks and crackling died down, the static charge draining off into the moist air. A few tendrils of fog were rising from the river, and Tom heard the big trout jump again, closer this time. Tom struck the nearest wall of the tent hard with his fist. It made a solid thudding noise. It felt as solid as a wrestling mat. He unsealed the door.

Inside, the floor of the tent felt like cellophane over the moss and pine needles. He spread out the sleeping bag, and popped the cap on the mattress. The mattress began inflating itself with a gross sucking noise. It expanded until it covered half the floor. Tom unzipped a small screened window, and reset the PermaCig for a few more luxurious minutes of Tampa smoke. He had whiskey in the pack, but decided he didn't want any. He laid his lucky fishing hat on the floor of the tent. The green tritium displays glowed brightly in the dim light. He reached over, and blanked out the digital clock readout. It didn't matter what time it was, for the next whole week. The beech embers in the fireproof liner under the grill were nearly out.

The simulated cigar expired with a loud click. Tom looked up through the one transparent panel in the tent roof at the sky. The stars were out, many more than you could see from the city, even in the suburbs outside the domes. Hackos, the captive asteroid where they were building the Moravec pinwheel, was a thousand miles up over the equator. It would be too low to see, down behind the trees over the southern horizon. There were other satellites, though, and a pink glow in the sky across the river. That would be the Seney fire. He smelled the fresh smoke from his own campfire, mixed with the remnants of the cigar and the false marijuana smell of the mosquito repellant. There was the distant "Bomp-Beep " of a maglev train, and chukking helicopter noises across the river. Tom removed his shoes, and pulled on the silvery paper sleeping bag. The mattress was as firm as the synthetic flesh on a rich executive's sex toy, or a crippled geezer's artificial limb. Tom polarized the transparent roof panel and went to sleep listening to the river.

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II

Tom was awakened by a tremendous splash. It sounded like an overweight Labrador retriever had jumped into the river to fetch a stick for its master. If that's a trout, he thought, I should have brought along a baseball bat for self defense! The birds were yelling and squawking, and the tent was damp with dew and fog remnants. He reached for his hat, but suppressed the urge to look at the watch display. It didn't matter what time it was. It was early, but too late to go back to sleep. He got out of the silvery paper sleeping bag, and put on his shoes. Outside, the grass and reindeer moss were as wet with dew as if it had been raining half the night. He got the pack down from the tree branch where it had hung, and shook the moisture off the fabric. He broke a double handful of squaw wood stubs and dead branch ends from the tree. He piled them on the ashes under the wire grill. He added a few dry pine shavings he had kept inside the tent, and lit the fire. He added a few smaller beech sticks from his pile, and a slab of half-rotten pine he kicked loose from the stump. He put the coffee bag on to boil, and went down to the stream to wash. The water was very cold, and there was a small turtle watching him with saurian, beady eyes from a half-submerged log across the stream.

Tom mixed a double measure of instant coffee, nearly filling the plastic beer stein. He thought about the canned bacon in the telephone pocket of the pack, but decided to save it. The griddle was his pride and joy. The square bottom frame was sodium-filled light metal alloy, to maintain an absolutely even temperature. The top surface was antique cast iron, two millimeters thick.

It had been salvaged from an old restaurant range in Hammond, Indiana, laser milled flat, and bonded to the substrate. The top had been lovingly tempered with polymerized corn oil for hours at just the right temperature. Nothing would stick to the griddle, but it only weighed a scant kilogram.

He mixed up the pancake batter with water and powdered milk, and added as many blueberries from the bag in the pack as he dared. He poked the fire and added a few sticks. When the red enamel dot on the griddle turned gray, the temperature was just right. He poured out four evenly spaced pancakes on to the griddle, making them slightly elliptical. They'd be easier to turn that way. He mixed a pouch of powdered orange juice, and another full mug of coffee. He flipped the pancakes when the bubbles started breaking. They were perfect. He piled them on the plate, and made one more big flapjack with the rest of the batter. He finished the breakfast quickly, and stuck the big pancake into the pouch with the rest of his lunch stuff. He added a couple of soft drink and beer tabs, and

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stuck them into his shoulder bag along with the fishing tackle and a half-pint self-heater.

He stripped off his chino slacks, and started pulling on the waders. They were the lightweight kind, as ephemeral as panty hose. Tom looked down at the silvery insulating film that covered his legs. They were comfortable, but he hated them. "My God!" he said. He grasped his shoulder bag and held it like a purse. "I look like a robot doing bad Shakespeare, or a wimpy stockbroker from Downers Grove!" If a Hemingway macho outdoorsman ever saw this getup, he thought, he'd laugh himself into a hernia, or worse. He pulled the slacks back on over the waders, and put his sneakers back on over the stocking feet. He set the shoe adjustments for extreme wet weather. He refilled the large water bag, and hung it in the sun to warm for a shower later. He tidied up the camp, then looked for bait. He found a half dozen small worms under logs and clumps of moss, and a couple of bigger night crawlers under a rock. He caught some damp, dopey grasshoppers, and stuffed them in compartments in the bag. He followed the stream until he hit the second swampy stretch, and then began to fish.

Tom took the rod out of the pouch, and checked to see that the batteries were fresh. He set the configuration DIP switches with the point of his pocket knife, selecting a two and a half meter fly rod with a medium bamboo action, and a slightly higher rigidity in the first meter. He turned the master switch in the handle, and then watched the tube grow with satisfaction. It was now a full size rod, though impossibly thin, as thin as coat hanger wire at the base. Tom clipped the boroceram-inlaid line guides to the rod at the red marker stripes, and bonded them in place. The fly reel was the old fashioned kind you wound with a key; he didn't care for stepper motors. The double-taper fly line was absolutely conventional.

The leader was high density. It looked like two pound Nylon monofilament, but you could tow an asteroid with it. He bonded one end to the flyline with a sintered diamond connector, and covered the connection with a protective dab of quick-setting cement. He bonded a memory wire hook to the other end. He waded into the stream. He clipped the two acoustical transducers, about the size of shirt buttons, onto his pants legs just above the knee, and ran the wires up to the sonar pouch on his belt. He stuck the lightweight stereo earphones in place. He waded out until the heads were submerged a few inches. He switched on the sonar, and carefully looked over the surface of the stream, matching up the surface features with the underwater picture in his head.

There were several small trout hiding in the shallows behind a sand bar. The differential doppler circuit made them sound like jingling car keys. When a fish drifted with the current, it vanished in the earphones,

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but when it swam, you could hear it. There was a deeper stretch along the far bank a ways downstream. It shrouded a heavy swishing sound that faded. It was probably a fish, but the echoes from the bank made it hard to tell. If it was a trout, it was lurking in an eddy, barely moving. It might just be a chunk of waterlogged wood floating there. Tom switched off the sonar.

He decided to try the grasshoppers first. He plucked one from the pouch compartment, holding it carefully so as not to crush it. The insect strained and pushed with its strong back legs. Tom was reminded of that silly monster movie, with giant grasshoppers the size of Buicks raising hell all over downtown Chicago. This one had a splotch of what appeared to be orange paint along the right side of its body. He bonded the hopper to the memory wire hook with a dab of Eastman waterproof cyanoacrylate.

Curious, he pulled the clear plastic bait compartment out of the shoulder bag, and studied the rest of the hoppers. Several had the funny orange splotches. It was weird. Probably markings for some research program. Tom could visualize students from Michigan State running happily through the blueberry flats, squirting orange paint on grasshoppers with manic glee.

Tom tossed the baited hook in, and began to play with the rod, whipping out more and more line. He tried a practice cast in the open water in midstream. The hook dropped just where he wanted it. He got out the old graphite landing net his uncle had given him, and unfolded it. He hung it on his belt, and then dropped the grasshopper into the deep spot, just upstream of where the sonar shadow had been. It drifted slowly through the eddies, kicking angrily. Nothing happened. He tried twice more, perfect casts. The leader on the baited hook was totally invisible. Tom switched the sonar back on. The object was still there, wavering slightly against the current. He tried another cast, stepping a couple of paces closer. The gravel his sneakers kicked up made musical noises in his earphones. He was reeling the bait in, feeding the line through the fingers of his left hand. A soft hissing came diagonally across the stream behind him, the doppler shift very pronounced in the earphones. He had retrieved the baited hook about halfway, feeding some slack line back onto the spring-loaded spool, when a trout took the bait and was off downstream, tugging hard on the line.

Tom stepped back, feeding the fish some more line, and then increased the pressure. The fish turned broadside in the current, shaking its head. It made jerky, waffling sounds on the sonar. The big shadow along the bank was still there, solider than ever. He pulled the trout in more quickly than usual, keeping half his attention focused on the shadow along the bank. He got the fish into the net. It was small, just barely

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over the seventeen centimeter minimum, and was still showing plenty of fight. Tom anchored his rod to his belt clip, put on a sterile plastic glove, and lifted the trout out of the net, still wriggling strongly and shaking its head. He crushed the barb on the memory wire hook with his needle-nose pliers, and backed the hook out of the fish's jaw. He released the trout, and it streaked away downstream, unhurt. He touched the hook with his lighter flame, restoring the barb. He bonded on another grasshopper.

Tom waited impatiently for the thirty second cement to set, then began working the line out. When he had enough, he dropped the new hopper into the pool along the shore, and it floated directly over the lurking shadow. Nothing. He pulled the hook back for another cast. The shadow moved, gradually at first, then surging off downstream. The doppler shift was even more pronounced than on the smaller fish. There wasn't so much as a telltale ripple on the surface. Tom was impressed. The fish sounded as long as his arm!

Tom worked his way down the stream. There were numerous small trout in shallower spots at every bend, but he avoided them. He came up on an artificial barrier, a submerged weir of rocks with a pool behind it. There were fish in the pool, but they were blocked to the direct view of the sonar. The echoes he was getting were multipath cushion shots from the far banks, and all that came through the noise were garbled doppler swishes of movement. A dolphin could probably have figured it out, but it was beyond Tom's capabilities with low power pocket sound gear. He put on a fresh hopper, another of the ones with the orange splotches, and worked out some line. He dropped the baited hook into the standing wave of turbulence over the weir, and let it drift across the surface of the pool.

There was a strong tug on the line, and the fish angled out past the permanent ripple that marked the end of the weir. He took plenty of time, letting the trout tire itself. You could reel a fish in a lot more quickly with high density leader, of course, but there was always the chance the hook would tear out of the fish's mouth. Tom took his time; this fish was no monster, but it was definitely bigger than the first one that had grabbed his bait uninvited. He had the trout on the surface, now, only a few meters from the net. It was a beautiful trout, not much longer than the first, maybe twenty centimeters, but thick and heavy through the body. The trout saw the net, and struggled with renewed energy. It streaked back upstream, crossing over the deep water behind him. It leaped over a dead tree branch, hanging up the line, and disappeared under the brush along the bank.

Tom tugged gently on the line with the fingers of his left hand. The branch was dead fir, as thick as the narrow end of a baseball bat. He

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tugged and released the line repeatedly. He worked until the thin leader was on the branch, and the flyline was all in the clear. Then he wrapped the heavy line around his fingers, and pulled, slow and hard. The leader bit into the dead wood with a strange squeaking sound, rich with musical harmonics in the earphones. The wood cut through with a noise like a plucked violin string, and six feet or so of tree branch fell into the water with a rolling motion. Tom moved a couple of steps closer, and began carefully working the fish free of the brush and out into the clear water.

He had the trout in the net, finally. It was thick and heavy, totally exhausted. It was definitely a keeper. He got one of the fish chips that had come in the packet with his license. He plunged the syrette needle into the trout's back, just behind the head. The fish stiffened. Its spinal cord was now blocked and it wouldn't suffer. He plunged the 14 DIP pins of the fish chip into the trout's back at the same location. He measured the fish, and weighed it on a tiny strain gauge scale clipped to the line. He replaced the strain gauge in its socket on his hat brim. He shot the trout in stereo with his C.H.O.M.P. pocket camera. He sealed it in a sterile plastic pouch, and dropped it into his shoulder bag. The analytical lab inside the chip would be running dozens of chemical and biological tests on the fish, and would record the results for later, when he mailed the used chips back to the conservation office.

Tom caught another trout from the same pool, virtually a twin to the first one. He worked the second fish farther downstream, safely away from the brush piles. The smell of smoke from the forest fire was stronger now, and the helicopter noises were more insistent. Tom resisted the urge to switch on the watch display on his lucky fishing hat. His stomach told him it was past lunch time. He switched off the sonar to save the batteries, and found a dead log to sit on. He used the line cutter to slice a flat spot on the log. He filled the self-heater with stream water, added a spoon of instant coffee, and set it on the light gray of the shaved flat spot. He spread out his sandwich, a mock Gyros he had smoked himself on the grill in his apartment in Elgin.

He reloaded the PermaCig, cleaned the mouthpiece, and put in a fresh filter cartridge. He filled his plastic mug with stream water, and dropped in a soft drink tab, a Japanese cola that was supposed to recreate exactly the taste of 1958, 6½ ounce, bottled Coca-Cola from Atlanta. Tom had never tasted real Coca-Cola, of course, but this was very good, and it killed the taste of the river water. He finished the sandwich, and got out the folded-over pancake. The coffee was hot, now. He sat on the log with his legs in the water, taking big bites of cold blueberry pancake and washing them down with the coffee. It was more like fried blueberries with a few crumbs of pancake stuck in, he thought happily. He finished the pancake, and fired up the PermaCig, a 1963 Parliament this time.

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He thought of the big C.H.O.M.P. photo his Uncle Del had given him. Del had been flying spruce budwOrm surveys in a bush plane up in Canada. The scene was a stretch of the Mississagi River valley, where there had been a big forest fire two years before. The whole valley from Tunnel Lake north was solid blue with blueberries, miles of them. You could even see them from space.

"Good afternoon."

Tom looked up, startled. A young woman in a camouflage uniform was standing in the water, a couple of meters away. She was wearing skin-tight waders like his, only hers were low optical signature green instead of silver. On her, they looked great. She had a lightweight plastic Heckler & Koch carbine slung over her back and was holding a heavy aluminum staff crammed with electronics in the water. He recognized it as a chemical warfare sniffer from TV news footage. There was a Spec. 4 badge and a Chemical Corps patch in subdued embroidery on her jacket sleeve.

"Hello," he said. "Find any poison gas?"

She laughed. "No, we're just checking for borates from the firefighters. It's good training for sniffing CBR agents in the field." As if in a training film demonstration, a big helicopter flew over the stream towing a bucket on a belly cable, and flew chukkering off into the smoke.

"Like some coffee?" Tom gestured to the jar and the self-heater on the log.

"Thanks. I've got some." She patted a bulge in her baggy field jacket that gurgled. There was a plastic drinking nipple in the rolled-up gas mask snapped to her collar. "Martinez, Collins!" she said. There were two muffled clicks on her collar radio. Two camouflaged arms rose from the foliage twenty meters behind her, made a thumbs-up gesture, and sank back into the brush. "They've got to stay tactical, and watch for the aggressors," she said.

Tom thought of something. "Are the firefighters using orange marker dye?" he asked.

"I think so, why?"

"I've got a present for you, then," he said. He pulled the plastic container of grasshoppers out of his bag, and held up one of the struggling insects. One wing and one leg were bright, hot, fluorescent orange.

"Aha." She accepted the bug, nudging it carefully into a clear tube from her belt. "Could you show me on a map where you found him?" Tom held out the satellite photo, and marked their current location and the clearing where he'd caught the dopey grasshoppers. She glanced at her own topo map for a second. "Got it. Thanks. We'll check it out later." She tapped a series of coded clicks on her radio switch. There was an answering double click. "You want to keep an eye on that fire," she said. "They're already getting ready to evacuate Newberry and the Tahqua-

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menon State Park." She slung the sniffing device on her back alongside the carbine, and climbed nimbly astride an old pine stump, half hidden in the foliage. The stump rose about a meter off the ground, and began walking off into the woods on six multi-jointed camouflaged legs. The two other soldiers also rose from concealment, and followed on their own machines. They were wearing their gas masks and hoods, and had their weapons at the ready.

Tom recognized the little transport walkers. The G.I.'s called them "roaches;" they were about the size of a Mexican burro, but much lighter and easier to clean up after. He placed the markings after a minute. Indiana National Guard, probably from the big training camp at Grayling.

The PermaCig shut down with a click. Tom finished the dregs of the coffee, and packed up the remains of his lunch. He switched on the sonar and worked his way around the next two bends. Twice he caught doppler bursts from a large fish, hugging the deeper shore some distance ahead. He avoided several smaller trout, and caught one more good sized one which he photographed and released. He was approaching a couple of pilings driven into the stream bed along the shore at the foot of a steep bank. There were charred remains of an old log cabin or hiker's shelter on the crest of the bank. The structure was very old, probably dating back before the last couple of fires.

In the lee of the ruined pilings, the now familiar big fish was lurking, solid as could be on the sonar. Tom stripped the old grasshopper off the hook, and baited up with one of his two big worms. He clipped a couple of Teflon coated split shot onto the leader with the needle nose pliers. Perhaps the mystery lunker would prefer a worm for lunch. He dropped the weighted bait into the water a meter above the first piling, and let it drift downstream, past the sonar target—Nothing. He tried twice more, stepping carefully in the thigh-deep water. The fish was disdainful, swimming leisurely off down the river, breaking the surface just once with a powerful swirl.

Tom followed slowly, frowning. There was a sign posted on the other side of the pilings:

> "Next ½ Kilometer—Designated Quality Fishing Area. Artificial flies only. No sonar or electronic devices. Chemical pheromone lures absolutely forbidden! Maximum leader 4kg tensile. See DNR reg. #22340.86. Thanks for your good sportsmanship. Good luck!"

"Thanks a lot," Tom said. Always there were reactionaries in every sport. Tom thought of the kid in the Hemingway story, lying wounded in a hospital in Europe, fishing all the trout streams he remembered in his head to pass the time. There was an arcade in Wilmette where you could do just that. You could put on stereo glasses and headphones, and

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fish all the famous trout streams in North America, and a handful in Argentina, Scotland, and Korea as well. Sonar was a big advantage, but it saved fish, too. He'd deliberately avoided dozens of small trout this morning, trout that without sound gear he would have had to hook and release. No matter how careful you were, some would swallow the hook and be injured.

Tom thought of the handicapped. Marge's brother, Danny, had been flying a Skydozer, towing space junk and dead satellites out of equatorial orbit to clear a path for the Moravec. He'd been blown up by a booby trap in a dormant spy satellite. Skydozers were tough ships, and the charge had only been a kiloton or less, but it left Danny with no legs or eyes, a kid who used to walk the trout streams twelve hours a day all summer. Tom remembered when they'd fitted out his floating wheelchair with thrusters and sonar, and turned him loose on an easy stretch of the Au Sable below Grayling.

He sighed, removed the sonar heads and the belt box, and put them away in his bag. He burned the old connector off with his lighter and coiled the leader in its case. He tied on a length of eight pound Nylon. He selected a fly from his folder, a home-tied mayfly. He tied it on with an old-fashioned knot, no cement. You might as well enter into the spirit of the thing, he thought.

A hundred meters below the sign, Tom walked gingerly along the bottom. There was a deep stretch along the far shore, then the current boiled across the river and fanned out onto a flat gravel bed. He took a couple of practice casts. The fire was definitely closer. Little snowflakes of ash drifted down onto the river from time to time. The sky across the river was thick with helicopters. He had never seen so many outside a war movie. You could see actual columns of smoke now, and glimpses of actual flame. It was still a couple of klicks away, but a crown fire could move pretty fast.

Tom moved softly towards the deep stretch of water. He felt just a twinge of the old excitement. He made his first cast, and floated the fly down through the current. It was a little late in the year for mayflies, though there were some around all summer this far north. A small trout jumped after a water bug, startling him. It had only been a meter or two away from his fly. He tried again. Nothing. He took a few cautious steps, missing the usual gravel noises in the headphones. He tried several more casts, popping the fake mayfly onto the smoothly running surface. He was pulling in from his cast when he caught just a suggestion of motion, *the slightest of ripples, a meter and a half to the right.*

He raised the rod tip sharply, and made a rolling, D-shaped motion with his wrist, like a disengage while fencing épée. It made a perfect half barrel loop, and the fly popped right onto the surface of the surging

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water. There was a gentle tug, and then a long, straight pull, as if a dog were walking leisurely away with the hook caught on its collar. Then half a dozen sharp tugs, and sudden slack; Tom reeled back hard, bending the rod into a full half circle. The fish was still there, but the stretchy Nylon leader gave it a funny feel. Compared to the high density stuff, it felt like there was a meter of rubber band in the line.

The fish made another run, and Tom fed out more line, keeping just a little more pressure on. He had reached the beginning of the shallow, fast water, right in the middle of the river. It was open, clear water, with no snags. He took plenty of time, gradually working in a few precious arm's lengths of line, and then losing it again as the fish made another rush. For once, Tom wished he had a real high tech fishing rod, with integral strain gauges, dynamic line logic, and high speed steppers driving the spool. Plus infinitely variable rod stiffness, all under automatic control; it would be a pity to lose this fish.

The first few turns of orange warning line from the reel core were out now, and Tom worked hard to build up some reserve. He was peripherally aware of some shouting noises across the river, and once he glanced up to see a big half-track machine pulling a plow roaring across the blueberry flats a half klick away. The flames were easily visible now, and the sky was darkening, though it was hard to tell how much of that was smoke and how much was cloud cover. The sun vanished, then broke through. It looked like there was at least hope for rain before long. Tom concentrated on the fish, taking his time and trying desperately to avoid any ruinous sudden moves. The warning line was buried in the core again, and he'd gained twenty or thirty meters on the fish.

Suddenly a flurry of ash flakes swirled around him. The wind was picking up, and it was coming straight out of the heart of the crown fire. The fish rolled tiredly on the surface right in front of him, and he couldn't hear it. The roar of the helicopters and the fire itself masked all the river noises. The net was ready now, but the fish shied away from it, and made a half-hearted rush upstream. Tom pulled it gently back, working it slowly toward the net. It was a monster brown trout, an honest fish, not the back-cloned grayling, Albanian sand trout, or some such biological wonder he'd half been expecting.

He netted the fish safely, and began wading back toward the shore. All hell was breaking loose on the flats across the river. Vehicles were roaring back and forth, and the choppers were swooping and swarming like in a bad war movie. A number of men were running straight toward the river, and the little national guard jeeps and roaches were scuttling along just ahead of the fire line. Tom reached the bank, and hauled the flopping trout up onto the moss. He slipped a safety cord through the fish's gills and mouth, and tied it off to a sapling, to keep it from falling

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back into the river. He used a hand syrette to stun it; the little needle on the fish chip was probably too short to reach the spinal cord.

Glancing down the bank on his side of the river, he saw another man on the grass, next to the sign that marked the limit of the "Quality Fishing" part of the river. He got out his glasses. It was the Japanese kid. He had leaned a thousand-dollar antique bamboo fly rod against a tree as if it were a garden hoe, and was on his knees in the grass. He had pulled a big trout out of a flour sack, and was rubbing something on it. He glanced back at the infernal circus in front of him, zooming the lenses across the river and into the trees.

Suddenly the weak sunlight disappeared, a black shadow passing over him and sweeping slowly out toward the fire against the wind. All the motor noises and helicopter blade slapping faded into a tidal wave of sound. It sounded like all the B-17's in every World War II movie ever made. Tom looked up at a solid metal overcast. It was like the opening scene in the first Star Wars movie, where the bad guys' space ship zooms overhead, and keeps on coming and coming forever. The front of the shadow was over the fire now, and the metal ceiling kept flowing over him, maybe three or four hundred meters up. Even without the glasses, he could read the name on the side of the hull: "Heinrich Mathy" in old German lettering, and a gigantic Maple Leaf, seventy-eight meters tall.

The nose of the big zeppelin had caught the updraft over the fire now, and was pitching sharply upwards. Here, a kilometer or so farther aft, sudden downdrafts from the stern thrusters whipped the trees as the captain, or more likely, the captain's fly-by-wire computer, fought to keep control. Tom heard the "kerchunk" as 640 water ballast ports opened at once. He grabbed his fish and hugged it frantically as he wrapped himself around a tree trunk and hung on. The last thing he saw before the waterfall hit was the Japanese kid calmly peeling a sheet of rice paper off his trout, rolling it up, and tucking it into a plastic tube.

The downburst only lasted a few seconds, more swirling mist and fog than solid water. The crown fire was broken for half a klick. The zeppelin was rushing up into the sky, a lot lighter. How many thousand tons of water did one of those things carry? Tom wasn't sure. Three more zeppelins were coming up the fireline, crossing from right to left. It looked like the Santos-DuMont, the Lehmann, and the Higgins. Two of them dropped their ballast as well, bouncing up into the smoky sky and disappearing. The third one was still hovering over the fire, finally drifting out of Tom's view off to the left.

Tom slung the brown trout over his shoulder, turned off his rod and collapsed the tube. He headed, soaking wet, back toward his camp. The anti-nuke Luddites were going to have a conniption fit. Not one, but four, mile-long Canadian atomic zeppelins over American airspace! The Tory

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MP's were all in for a roasting in Ottawa, and Congress would be a circus for a few days, too. What the hell, Tom thought. The mounties to the rescue, and all that.

He realized that a fine, steady sprinkle of rain was falling now, not just mist from the zeppelins. He thought of the fanatical Japanese kid with his Nick Adams antiques. He wished him well, but you had to be careful about that sort of thing, or it could get out of hand, and end up turning nasty. What had the man on the train said? They were scheduling Hemingway centennial bullfights in Charlevoix! Right there in the high school soccer stadium, they were staging actual bullfights, with real animals, not robots. Famous toreadors were flying in from Mexico, the works. It was crazy!

He crossed a firebreak of freshly plowed level ground that hadn't been there this morning, and approached his tent. There were funny circular marks in the ground by the spring. Roach tracks. A packet of paper was stuck to the wall of his tent with olive drab adhesive tape. The hand-written note read: "Thanks for the insect vector. Was good for brownie points on the aggressors. Good luck, and good fishing!" The other paper was a printout from a military computer. It was two beers and a five minute suck on the PermaCig later when Tom realized what the strange alphanumeric characters represented: Lottery numbers. Winning Michigan trout stream lottery numbers for the next five years! ●

FOG

Safe in my cement shelter
I sip Sandburn

While outside
Chicago sifts in
on little cat feet.

—David F. Reitmeyer

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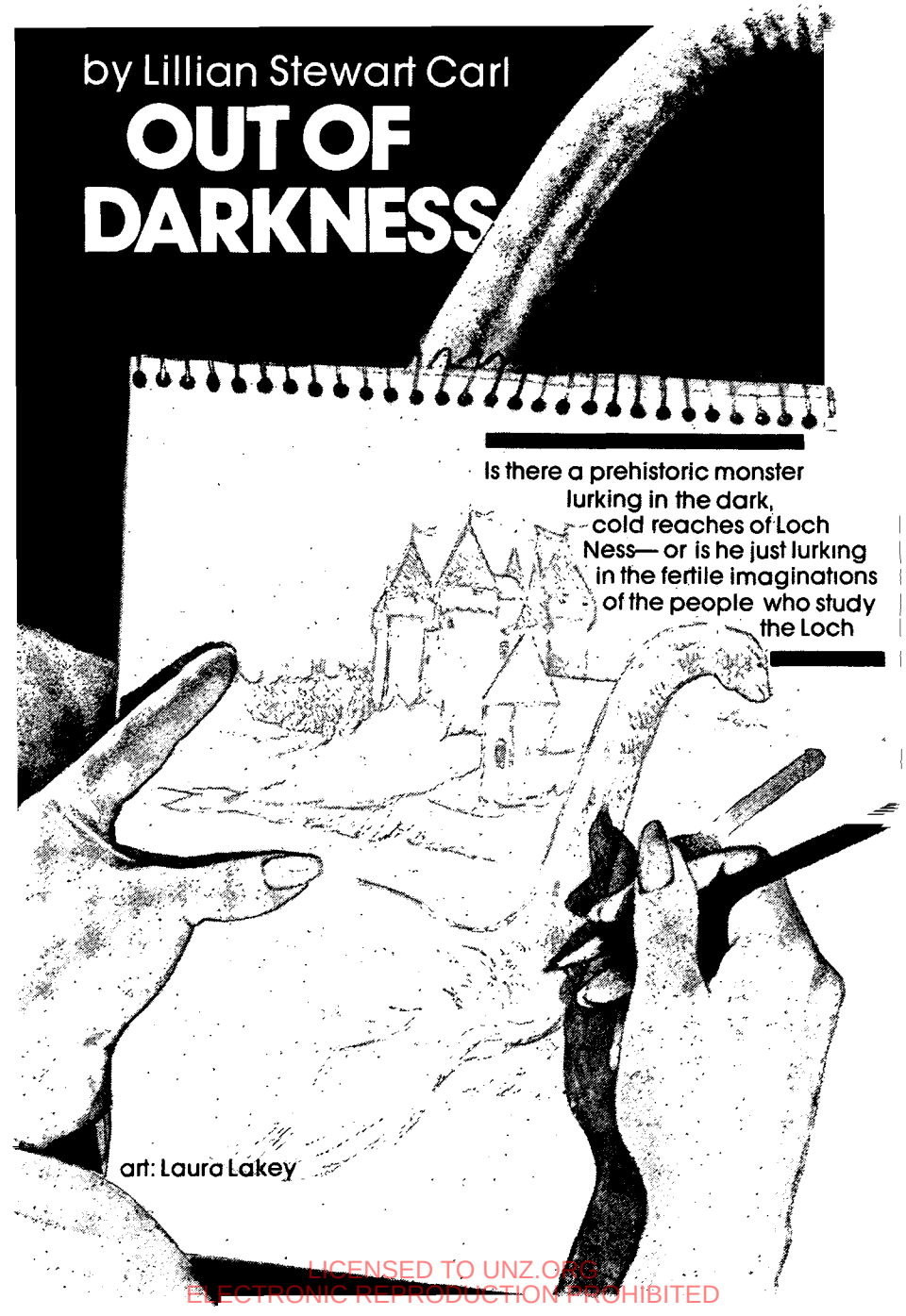
by Lillian Stewart Carl

OUT OF DARKNESS

Is there a prehistoric monster lurking in the dark, cold reaches of Loch Ness— or is he just lurking in the fertile imaginations of the people who study the Loch



art: Laura Lakey

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Sarah laid her cheek against the cold glass of the porthole, extinguishing her own reflection. The water outside was only swirling darkness. No; there was light, an infinity of tiny gleams, suspended peat particles both refracting and swallowing the halogen searchlights of the submersible.

Sarah wondered once again why she had let Mark talk her into joining him on this run. The water was dark and cold and deep. Loch Ness, it was said, never gave up its dead.

She turned away from the window, inhaling deeply to reassure herself. But the air was stale. Sweat ran in tickling streams down her back.

Mark sat at the controls, humming delightedly to himself. Hydrophone, speakers cleared of static and echoing with the hollowness of deep water. Sonar transponder, steady lines on the oscilloscope, registering only fixed objects—the camera rig at the end of the pier and a couple of sunken logs.

He loved this, Sarah thought with exasperated affection. Electronic senses extended, circuits opening and closing at his command. No wonder he'd given up his summer vacation to take this job with the Expedition. It was his summer vacation. His yearly fix of marine biology spiking his day-to-day expertise in electronics. And I can work anywhere, in my mind or out of it.

Of course, the doctor said she was fully recovered, ready for a change of scene. Therapy for a nervous breakdown, or nervous hyper-excitement, or however coolly they defined that shadow lurking among her thoughts. They had defined the horror that had sucked Julie's life as cancer.

Sarah realized that her damp palms had left grey smudges along the edge of her sketch pad. The first page, mountains. The second page, cottages along the road to Inverness. The third page—nothing. Nothing here but darkness.

In the ravaged husk of Julie's body only her eyes remembered youth, staring in dumb, anguished betrayal from the thicket of plastic tubes and leads and hoses that tied her down like a technological sacrifice.

The speaker clicked. Mark leaped to his dials, adjusting them as delicately as he had been touching Sarah since her sister's death. The speaker clicked twice more. "Listen," he said over his shoulder. "There it is again, just like yesterday. No known reason for those clicks. Don thinks that it might be some kind of sonar signal emitted by the animal."

The animal. The mythic monster. Estimated to be twenty feet long. Coasting silently through the darkness, through the cold darkness, attracted to the dim yellow shape and the muted lights of the submersible.

The submersible was about the same size as one of the beasts. Sarah's fingers tightened on her pencil and it broke. Sixty feet of thick water lay between her and the surface; this was the animal's element. Something

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hovered just beyond the circle of light, sensing their passage. She inhaled again, but her breath stuck in her throat and she choked. The sweat was cold now, flowing in streams down her face and body. Perhaps the sub was leaking, perhaps the seams had broken open.

"There!" Mark cried. Several small slashes startled the oscilloscope, moving fast across the field. Following them was a thick, heavy line, something big. Something very big. "It's chasing those salmon," said Mark. And, into his headset, "Don, we've got it! We're following!" He jerked the submersible around and accelerated.

No! Sarah screamed, but her voice was glue in her mouth. No, leave it alone, don't follow it into the dark!

The line on the oscilloscope wavered, thickened, thinned again. A barrage of chirps reverberated from the speaker. Sarah crouched, her hands over her ears. Mark, please, she moaned silently, let it go.

It was gone. The speaker hummed, the oscilloscope steadied. "Wow," Mark said, "it sure can move. It dived, Don, and it dived fast. Straight to the bottom, six hundred feet. Did you get anything?"

Sarah sat up and tried to quell her shivering. Come on, it was childish to be afraid of the dark.

"Yeah," continued Mark, "it does seem to be shy of the camera rig. Some kind of electrical field, do you think?"

"Can we go up now?" Sarah asked. Her voice was thin and faint.

"Hell," Mark said, and for a moment she thought he was speaking to her. Then, "Yeah, we're on our way. Blowing ballast."

"Mark?" she asked.

He glanced around at her, grinning in both exhilaration and frustration. "Almost had it, honey. Sub just can't move fast enough. Talk about a critter perfectly adapted to its environment. Straight down to the bottom!" He turned back to the controls.

The bottom of the loch. Centuries of silt, icy mud, dark like a grave. She shook herself, grasped at her sanity and steadied. Adults were too afraid of the dark, she told herself. The oscilloscopes around Julie's bed had registered not life but inexorable death.

The water outside the porthole lightened, became the color of thick tea. Then waves, and daylight. Glorious daylight. Sarah gathered up book and shattered pencil, her limbs as limp and loose as floating seaweed. But her head was clear. Transparent, she thought. Mark should be able to look right inside her, analyzing each curving track of thought.

"What's the matter?" he said. He stood to release the hatch.

"A touch of claustrophobia," she replied shamefacedly. "Too much water out there."

"Scuba diving along the Barrier Reef didn't scare you."

"This is different."

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"Nessie has you spooked? You have too much imagination."

"I wouldn't be an artist if I didn't have imagination."

"You can say that again." His expression wavered between concern and annoyance and settled on a noncommital shrug. He clambered topside and reached back to help her out.

She inhaled eagerly of the cool breeze and scanned the blessedly open horizon, hillsides quilted in shades of green, the stone houses of Lewiston, blue sky blotted with wisps of cloud. Don and a couple more Expedition people rowing out to the sub.

Sarah sat down on the wet coping of the hatch, folded her hands, and waited for rescue.

Sarah glanced with distaste at her breakfast plate. Every morning the same meal, eggs and a bland link sausage and broiled tomato, cold toast in a rack and oatmeal that tasted of vinegar. The waitress brought pots of boiling hot water and tea, and then handed around the plates one by one by one, making a labored trip back to the kitchen each time.

Mark and Don were deep in discussion, electronics, cameras, anguilloform eels, *Nessiteras rhombopteryx*. The long, intense face of the expedition leader shimmered in the steam from the teapot, as if he spoke through a barrier of water. "Popular superstition has that it's an elasmosaur, left over from the Age of the Dinosaurs. But no reptile could survive in water that cold."

Mark nodded sagely. "You can't tell from the fossil record whether the dinosaurs were cold-blooded. There's a good case for warm-bloodedness."

Sarah cradled a warm cup in her hands and gazed out the window. Science sought to disprove superstition. But if superstition hadn't recorded a creature in the loch, science wouldn't be looking for one.

Myth, which wrests meaning from the unknown, is hard-wired in the circuits of the human brain. The terminology might be Mark's but the thought seemed to be Sarah's alone. How could these men deny the fear of the unknown?

A ship moved slowly down the loch, leaving a v-shaped wake. The wake would be reflected from the nearly vertical banks, meeting again in the middle of the water long after the boat had passed. Some tourist would take a picture of it and declare it the tracks of a monster.

But the loch was deceptive. Waves, wakes, glassy spots and sudden outbreaks of bubbles—most of it could be explained by wind, by temperature gradients, by rotting vegetation. Loch Ness was the deepest loch in Scotland; perhaps the water guarded the secret of its depths by casting illusion across its surface. The Buddhist philosophers might be right, that life itself was just an illusion.

"I didn't believe in Nessie," Don was saying, "until I saw Rines' pictures

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during the seventies. And his videotape! I mean, there it was; a moving and therefore living animal, its size triangulated by the strobe, its passage recorded and measured."

"I have measured out my life in coffee spoons," Sarah muttered.

"Huh?" said Mark.

"Rage, rage against the dying of the light!" she declaimed.

"Ah. Poetry. Thomas Eliot or somebody." Fondly thinking he had responded, he turned back to Don.

"Lousy picture, though," Don sighed. "This year we'll do better. Get it all down. Irrefutable evidence."

Evidence, Sarah thought. Exhibit A in the murder of a legend. She turned back to the window.

Patterns of light and shadow played across the loch. Beneath its surface was another world, where sight was useless, where hearing was a primitive sonar receiver, where touch—what of touch? Did Nessie touch with pleasure the rough, scaly skin of her mate? Did she fear the dazzling sun-blast beyond the water's surface membrane?

Imagination, Sarah told herself. What matters is not the threads of data, but what our imagination weaves from it. What we believe.

"And if you get that irrefutable evidence?" Mark asked.

Don's eyes gleamed. "A new species unknown to science. Think of the fallout! Biology, medicine, genetics; environmental ecology . . ."

"Admit it," teased Sarah. "You simply want to be the little boy who slays the dragon."

Don turned to her. "No one ever said anything about killing it," he remonstrated soberly.

Mark rolled his eyes upwards, whether at Don or at Sarah was hard to tell. Sarah allowed herself a dry laugh and picked up her sketch book. "I'll leave you with your evidence. I'm supposed to be illustrating a book about intangibles, after all." And not distracting you from your quest for certainty, she added to herself.

"Yeah," said Mark, as he blew her a conciliatory kiss. "The elves' quest for the dragon's magic sword, or whatever it is. Fantasy."

"Fantasy is good for the soul," she retorted. "Even though you'll never find irrefutable evidence of the soul's existence." Her smile was equally conciliatory, even indulgent, if somewhat strained at the edges.

They had already dismissed her. "Now," Don was saying, "if we take the submersible beyond Foyers this afternoon . . ."

Sarah hiked down the road toward Urquhart Bay. The castle, poised on its promontory beside the lake, was picturesque enough. But passive, somehow. Not like the water itself. Or like the stream of tourists heading for Drumnadrochit and the Official Loch Ness Monster Exhibition. It might be the twentieth century, the age of the antibiotic and the inte-

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grated circuit, but mankind still craved myth. Created it, if necessary, now that genuine gut-wrenching, nape-crawling, awe-inspiring Mystery had been enlightened into a few shadowy corners.

The local Scots profited from the religious impulse just as had innkeepers on the great medieval pilgrims' routes. They even offered good quality woollens, ceramics, and jewelry among the plastic Nessies and the children's tee-shirts reading "I'm a wee monster from Scotland."

Sarah found a low stone wall, sat down, opened her sketch book. A few strokes and the castle rose against the mountains opposite, no more substantial than its reflection, only a dream. Elf lords danced on the battlements, and the skirling of their pipers summoned narrow heads and necks from the water. The necks swayed to the music. The stones in the castle trembled beneath the dancing feet, left the bounds of earth and sailed across the water.

A groundskeeper worked on the steep grassy slope leading to the castle, his scythe swishing back and forth like yet another image from the dark ages. Suddenly, despite herself, Sarah wondered if the man's battered hat concealed a death's head.

She ripped the page from the book and tore it into dirty shreds. Mark, she thought, I'm sorry. I'm not a computer or a submarine; my nerves are not neat columns of facts and figures on a CRT. It would be a lot easier if they were.

But then, even those facts and figures had to have a programmer.

It must have been the reflected wake of a ship that moved at a stately pace down the center of the loch. A brilliant illusion, as if something swam just beneath the surface, at the boundary of two worlds.

The afternoon was shrouded with hazy cloud. The breeze that stirred the valley of the loch was fresh from the Highlands, Sarah told herself, scented with heather and gorse. Presumably heather and gorse had scents.

The launch crested another wave. Not good Nessie weather, this; the loch surface was chopped and broken. So was Sarah's stomach. Again she gulped, and again she wished she hadn't had that broiled tomato.

But her resolve was as sharp as her pencils. Everything would be all right, no more fear, no more resentment. She was just jealous, that's all, of the attention Mark paid to the Expedition.

"Steep sides," Mark called out. His eyes were not focused on the steep boulder-strewn banks slipping by, a mile distant on either side; he watched the readout, sensing the invisible land beneath the surface, sheer cliffs, caverns, cold bottomless silt.

All right now, Sarah said sternly to herself. Calmly, calmly.

Don leaned over the stern of the launch, calling directions over his

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shoulder to the person steering. "Nice even speed, slow gradually. Wide curve toward Invermoriston."

If the boat swung around too fast it would foul the leads of the sonar towfish. Damned expensive towfish, thought Sarah. You could endow an art scholarship or build a library with what it had cost. But then, the elusive beastie was probably worth it. Not to prove its existence—a myth, by definition, did not require proof. It was the search that mattered.

Near Invermoriston, soon after the disastrous battle at Culloden in 1746, a certain Roderick MacKenzie sacrificed his life by acting as a decoy for Bonnie Prince Charlie, wearing the prince's jacket and drawing the English fire upon himself. Romantic, even quixotic gesture, but it had bought him an immortal name.

"Carefully!" Don bellowed.

Sarah's pencil danced. Don's aquiline profile appeared on the paper, shadowed by the peaked hat of an eighteenth-century British admiral. Nelson, cloaked in his own mythic certainty, strolling the quarterdeck until a French sharpshooter could immortalize him, too. Sarah bit deep into her lower lip. A paradox, that dying could win deathlessness, but the bereaved would embrace any paradox if it promised meaning.

"Signal's breaking up," Mark called.

Don boomed, "Slowly!"

"No, no, probably just a thermal layer."

Sarah laid down her book and pencil, reached for the thermos, then rejected the idea of hot tea. The chill of the afternoon was only accentuated by the gradual carbonation of her stomach. Maybe if she changed her position. She stood, gingerly, and stretched.

"Don't rock the boat," Mark growled from the corner of his mouth.

"Rocking boats is my specialty," she responded.

The waves smacked rhythmically against the side of the launch. The wake was barely discernible. Ahead was dark corrugated water, flecked with foam—Irish coffee, grumbled Sarah's stomach, and again she quelled it.

There was a smooth place between the waves, a dim shape moving dimly beneath the surface just at the bow of the boat. A trace of a wake, overwhelmed by backwash. Sarah, bemused, leaned over the side. Through a glass darkly. . . .

Then she realized what she was seeing. A creature from another world, a dream at arm's length, toying with its pursuers. She inhaled, opened her mouth to speak.

The shape veered to the side, cutting across the bow. The launch ran up onto it and stopped with an abrupt clatter of equipment.

Sarah was catapulted over the side. For a fleeting second she thought something had seized her, jerking her from the boat. No, she was falling,

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loose-limbed and helpless as a doll, downwards into darkness. The water rose up, slapped her, swallowed her.

Cold, bone-chilling cold. *Loch Ness never gives up its dead.* Her open mouth filled with water, her throat clogged with it. Her blood clotted with horror. The sensation drained from her hands, her limbs. Then, with some desperate flash of rationality she told herself, dammit, you can swim! She thrust herself upwards, breaking the surface, spitting and coughing. The boat, where was the boat!

Her waterlogged sweater dragged her back under. Into the element of the creature, borne downwards into impenetrable night. She fought, screaming silently, for the surface.

A searing breath of air. Shouts in the distance, a motor. And something touched her leg. Her numbed nerve endings thrilled with it, a rough, flexible appendage. She wrenched away, floundering, and the water pulled her down again. Crushing cold, and darkness watching, waiting . . .

Something grabbed her and dragged her gasping into the air. She struck out, but she was moving in slow motion, hands like lead weights.

It was Mark. "Hey," he shouted, "calm down."

Easy for you to say. This isn't your nightmare. Hands pulled her from the water and hauled her like a sack of dead fish over the gunwale of the boat; she noted the metal ridge but felt no pain. Mark splashed down beside her and she clutched at him, shivering with more than cold.

"Are you all right?" Don asked. And to the others, "Get the towfish in, quick. We have to get her back to camp." He peeled off his jacket and wrapped it around her.

Her hair leaked runnels of water down her face. She was crying, she realized, hot salt tears mingling with the peat-dark drops of chill.

"Towfish is fouled," someone called.

Don turned. "That sudden stop; could've been a log, I guess."

"Yeah. Sure. I just hope we didn't hurt it."

They hauled in the torpedo-like bundle of equipment, clucking solicitously. The motor roared and the boat slapped against the waves. The banks of the loch heaved and shuddered, tumbling from the sky in waves of varied green.

"What got into you?" Mark asked. "You were flailing around out there as if you'd never swum before."

"S-scared," she stammered.

"Of what? Of Nessie?"

"Of the dark. Of getting lost in the dark. Of never coming back."

"Sarah," he sighed, shaking his head, but even so he pulled her closer to him.

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Don sat beside them and opened the thermos. The sketch lay water-stained at his knee. "I like that," he said. "Always admired old Horatio."

His courage? Or his ego? Sarah's teeth chattered on the cup Don offered. "Thank you."

The boat sped up the loch, riding the crest of superstition, between daylight and shadow.

Sarah stood on the narrow curve of beach beside Urquhart Bay. Behind her were the trailers—the caravans, she corrected herself—of the Expedition. The rhythmic chug of a motor, a door slamming, voices; the evening stillness caught it all and held it suspended, swirling particles of sound. Shadows lay long across the glassy surface of the loch.

Hands touched her shoulders and she started. Mark's voice intoned, "From ghoulies and ghosties and long-legged beasties and things that go bump in the night . . ."

"Good Lord deliver us," Sarah finished. How appropriate.

He stood beside her, contemplating translucent sky and translucent water separated by the black horizontal slash of the opposite shore. "Sarah," he said, "surely you didn't mean to imply this morning that Don is only hunting sensation."

"I'd like to see him turn down a guest spot on the Carson show."

Mark snorted. "All right; we all want a shot at immortality. But give him some credit as a scientist."

"And what he's doing is cool, dispassionate scientific research? Cheap rhetoric." She scuffed at the gravel. The water lapped questioningly at her toe. "It's like those people who say they've seen a UFO. They have an emotional stake in the answer. They want to believe there's more to existence than death and taxes."

"So?" He stared at her, brows tight, as he would stare at some unidentifiable marine creature.

"Irrefutable evidence? Tapes, pictures, whatever, it all comes in through the senses and is evaluated by that brain which causes emotions, too. The local superstitions are evidence. One of my drawings is as valid as a photograph."

"But not in the same way. Superstitions, art—they can't be quantified."

"Why should everything be quantified? Because your particular fear of the dark finds comfort in quantification?"

A boat beat up the loch, sending shock waves through the twilight. After a long time Mark laid his arm across Sarah's shoulders and said quietly, "Julie's death was—pretty ghoulish, wasn't it? Respirators, plastic tubing, all the technological paraphernalia that only prolonged her agony and left us to wonder why."

She stood stock still in the circle of his arm. She had thought him

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insensitive, but what he was, it seemed, was sensible. "Yes," she whispered, "if we didn't wonder why we'd be vegetables."

A faint gleam diffused into the sky above the dark ridge of the distant shore. A thin pale gold circlet swelled up and out. The moon rose over Loch Ness and laid a shining path across the water.

"Beautiful," said Sarah. She could step onto the light, follow the path up and across the dark water and into the sky. She could dance among the Pleiades, as light as one of her pencil-and-paper fairies, unencumbered by mortal flesh.

Mark's face was burnished by the light. How handsome he was, how sturdy. She warmed in his glow.

"Just think," he said, "how much equipment the Apollo astronauts had to leave up there. Perfectly good cameras."

Sarah's image cracked, shattering into crystalline shards that cut deep. . . . No. They did not cut. She would not let them cut. They tickled instead, and she clung to his arm wreathed in helpless giggles.

"Now what?" he asked warily.

"You. You're so refreshingly honest, straightforward, unimaginative."

"That's a compliment?"

"Yes. Yes, actually it is."

"Okay," Mark said, baffled but obliging.

Sarah could see him plunging fearlessly into the dark, eager to see what lay on the other side. Foolish bravado, to court the silent shapes in the depths, to risk oblivion. Wasn't it?

They turned toward their own tiny trailer, pausing just outside for one glance back at the gleaming celestial disc. "Luna," Sarah conjugated, "lunacy, lunar tides, lunar rover." Light, perhaps, an imperative beyond darkness.

Arm in arm they went inside and shut the door on the night.

Sarah stood on the threshold of the Expedition hut. It was morning of a clear day. Brilliant sunshine danced on the waters of the loch before her, and the waters heaved, slowly, stretching toward the light.

Beneath the surface sheen, in the darkness where the light could not penetrate, an earlier expedition had found ancient stone rings. Relics of an earlier time when the water level had been lower, Sarah told herself. Man's ancient impulse toward ritual, to propitiate the dark even as it swallowed him. To defy it.

No one was in camp; Don and the rest of the expedition staff had left early to haul the submersible up to Lochend. Mark had promised to follow later that afternoon. Right now he was working over the monitors in the hut, creating a minestrone of wire, capacitors, transformers, trying to line their 110-volt equipment to the 240-volt power source.

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Rather like us, Sarah thought. Two different voltages, the neurasthenic nut mated to the scientist, together forming something unique and vital.

Mark was humming something under his breath that could have been anything from a Beatles tune to a Beethoven symphony. With a grimace Sarah tucked her sketchbook under her arm and strolled down to the beach. There was another anomalous wake pleating the water, probably an echo of the Expedition launch.

One of the videotape camera leads was snagged on a rock, and she bent to retrieve and straighten it. The sinuous shape of the wire piqued her imagination. She sat down beside it and drew a pencil from her pocket. The wires became living appendages reaching into the water, reaching into another element, defining shapes in a shadowy world, human eyes and ears and voices, human senses cleaving the darkness. If truth is beauty, she thought, perhaps science was indeed art. What did scientists want, after all, but to believe in the quark or the quasar or the validity of the human observer who named them both?

Mark stopped humming, encountering some problem that absorbed his entire attention. Sarah began humming, stilling a quaver of fear with melody. The twin wave of the wake crimped the surface of the loch.

She remembered the peat-dark water closing over her head. She remembered the touch of something—not unearthly, because it was from Earth.

Without darkness, light would be meaningless; without light, darkness would be impenetrable. Human perception was sketched in shades of gray. The quest for understanding, whether pursued by scientist or artist or tabloid myth-monger, was its own ritual of propitiation.

She grinned; here I go again, purple prose and all. Julie used to call me a real vapor-head, and she was probably right.

Sarah's pencil danced. An animal, long neck, flippers, strong rhomboidal tail sending it with swift, sure strokes through the darkness. An animal questing, warily, fearfully, toward the mystery of light.

Several salmon leaped from the loch and fell back, spattering themselves across the water. The wake followed, the twin wave curling white and thick. Iridescent bubbles skimmed upwards, neither light nor dark, joining world to world.

A long dark neck, eyes and nostrils like slits, thin protuberances like horns. A mouth gaping open, seizing a salmon. A thrashing in the water, spray cast upward like tiny prisms into the sun.

The fish disappeared. Sarah's pencil fell from nerveless hands. The illusions of the loch, the surface concealing the depths—she could not trust her senses. She had called it, surely, from the fevered depths of her need to believe.

The creature flopped over, flippers beating the air, rounded belly facing

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the sky. Its thick tail beat the water, sending droplets high into the air. The droplets, cold ice flakes, fell on Sarah's face and she started.

It was there. Not an object of fear, but of awe. An affirmation. She stepped backwards, one foot behind the other. Her sketchbook trembled in her hands. "Mark," she called hoarsely. "Mark, come down here, please."

The creature lay still, back arching from the water, wavelets licking at its skin. Its head and neck curled from side to side, slowly, seeking food.

"Mark!" Sarah croaked.

Distracted, he called, "Huh? What?"

"Forget the monitors. Get your camera, if your own eyes aren't good enough." And, a moment later, softly, "Thank you, Julie."

"What?" Mark called again, plunging down the embankment to her side. He hadn't brought a camera.

"There," she said, with a grand wave at the loch, the wake, the fish, the basking creature. It seized another salmon, tilted its neck upwards, splashed about as if playing with its prey. Mark collapsed onto a rock, swearing slowly, reverently, under his breath.

Sarah plucked another pencil from her pocket and began to sketch. Head, neck, back—even the fish leaping from the water.

"No camera," Mark mourned. "Strobe's blown a fuse. No sonar, no hydrophone."

"You can see it, can't you?" Sarah flipped to the next page in her book, beginning again. Magic flowed through her eyes, through her fingertips; the image leaped from the paper.

"I see it," said Mark. "Whether it's really there is another matter."

"Yes, Mr. Spock," she returned with a smile.

The creature slipped beneath the waves and disappeared. The water smoothed itself and lay still. The sunsheen reflected from the surface of the loch as from a burnished shield.

Sarah's fingers slowed and stopped. She was weak with effort. Her knees buckled and she sat beside Mark. "God!" he wailed. "No camera!" His eye fell upon her drawings and lightened. "Hey, those are good. Now if we can only get Don to believe it."

"Do you believe it?" she asked quietly.

"Yes. I saw something. And I'd sure like to see it again, even if it takes a lot of looking."

"That's all that matters."

"Is it? Is it really?" He laughed. "It's that easy, then?"

"No, it's never easy," Sarah replied. "But the wanting to search; that's enough."

They sat close together by the deep water. The darkness ebbed. ●

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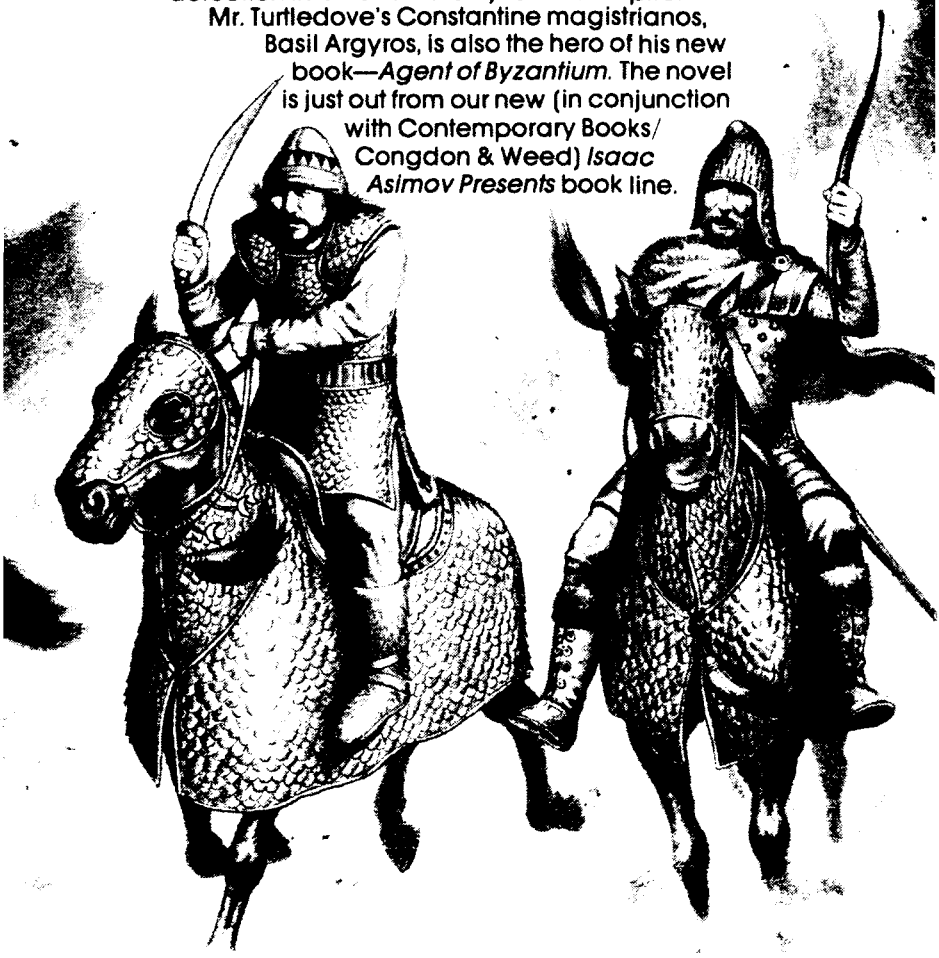
by Harry Turtledove

SUPERWINE

art: Bob Walters

Here is another of Harry Turtledove's popular tales of intrigue and detection in an alternate Byzantine Empire. Mr. Turtledove's Constantine magistrianos, Basil Argyros, is also the hero of his new book—*Agent of Byzantium*. The novel is just out from our new (in conjunction with Contemporary Books/ Congdon & Weed) *Isaac Asimov Presents* book line.



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The man next to Basil Argyros in Priskos' tavern near the church of St. Mary Hodegetria took a long pull at his cup, then doubled up in a terrible coughing fit, spraying a good part of his drink over the magistrianos. *"Kyrie eleison!"* the fellow gasped: "Lord, have mercy! My throat's on fire!" He kept on choking and wheezing.

Argyros' eyebrow, a single black bar that grew above his deepset, mournful eyes, went up in alarm. "Innkeeper! You, Priskos!" he called, "fetch me water and an emetic, and quickly! I think this man is poisoned." He pounded the fellow on the back.

"Sir, I doubt that very much," replied Priskos, a handsome young man with a red-streaked black beard. He hurried over nonetheless, responding to the sharp command in Argyros' voice; the magistrianos had been an officer in the imperial army before he came to Constantinople.

"Just look at him," Argyros said, dabbing without much luck at the wet spots on his tunic. But he sounded doubtful; the man's spasms *were* subsiding. Not only that, several of the men in the tavern, regulars by the look of them, wore broad grins, and one was laughing out loud.

"Sorry there, pal," the coughing man said to Argyros. "It's just I never had a drink like that in all my born days. Here, let me buy you one, so you can see for yourself." He tossed a silver coin to the taverner. Argyros' eyebrow rose again; that was a two-miliaresion piece, a twelfth of a gold nomisma, and a very stiff price for a drink.

"My thanks," the magistrianos said, and repeated himself when the drink was in front of him. He eyed it suspiciously. It looked like watered wine. He smelled it. It had a faint fruity smell, not nearly so strong as wine's. He picked up the cup. The regulars were grinning again. He drank.

Mindful of what had happened to the chap next to him, he took a small sip. The stuff tasted rather like wine, more like wine than anything else, he thought. When he swallowed, though, it was as the man had said—he thought he'd poured flames down his gullet. Tears filled his eyes. Careful as usual of his dignity, he kept his visible reaction to a couple of small coughs. Everyone else in the place looked disappointed.

"That's—quite something," he said at last; anyone who knew him well would have guessed from his restrained reaction how impressed he was. He took another drink. This time he was better prepared. His eyes watered again, but he swallowed without choking. He asked the innkeeper, "What do you call this drink? And where do you get it? I've never had anything like it."

"Just what I said," the fellow next to him declared. "Why, I—" He was off on a story Argyros did not want to listen to. Magistrianoi were imperial agents; they reported to the Master of Offices, who in turn reported directly to the Avtokrator, the Emperor of the Romans himself. Anything

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new and interesting Argyros wanted to hear about; his fellow drinker's tale was neither.

Luckily, Priskos was proud of his new stock in trade, and eager to talk about it. "I call it *yperoinos*, sir." *Superwine* was a good name for the stuff, Argyros thought. At his nod, the innkeeper went on, "We make it in the back room of the tavern here. You see I'm an honest man—I don't tell you it comes from India or Britain."

A good thing too, Argyros said, but only to himself: I'd know you were lying. No customs men were better at their job or kept more meticulous records than the ones at the imperial capital. If anything as remarkable as this dragons' brew had entered Constantinople, word would have spread fast. The magistrianos drank some more. Warmth spread from his middle.

He finished the cup, held it out for a refill. "And one for my friend here," he added a moment later, pointing to the man who had inadvertently introduced him to the potent new drink. He fumbled in his belt-pouch for the right coins. They seemed to keep dodging his fingers.

By trial and error, he found out how big a draught of superwine he could swallow without choking. The tip of his nose began to turn numb. Usually that was a sign he was getting drunk, but that could hardly be possible, not when he was just finishing his second cup. He could drink all night in a tavern and still handle himself well. Indignant at himself and at his nose, he waved to the innkeeper again.

He had not gone far into the third cup when he realized how tight he was. By then it was too late. He prided himself on being a moderate man, but the superwine had snuck up on him. The more he drank, too, the easier the stuff was to drink. Feeling most expansive, he ordered a fresh round for everyone in the place, the taverner included. Cheers rang out. He had never, he thought, drunk with such a splendid lot of fellows.

He fell asleep with a finger's width of drink still in the bottom of his cup.

Anthimos stuck his head into Argyros' office. "His illustriousness is here to see you," the secretary declared, and seemed to take mordant pleasure at his boss' groan. Mordant pleasure, Argyros sometimes thought, was the only kind Anthimos really enjoyed.

George Lakhanodrakon came in while the magistrianos was still pulling himself together. The Master of Offices was a bald, stocky man in his mid-fifties, ten or twelve years older than Argyros, and handsome in the big-nosed, heavy-featured Armenian fashion. "A fine morning to you, Basil," he said cheerfully; only the slightest eastern accent flavored his Greek. Then he got a good look at Argyros, and at once went from superior to concerned friend. "Good heavens, man! Are you well?"

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"I feel exactly like death," Argyros replied. He spoke quietly, but his voice hurt his ears; his eyes were vein-tracked and found the sun oppressively bright. His mouth tasted as if the sewers had drained through it, and by the state of his digestion, maybe they had. He said, "I slept in a tavern last night."

Lakhanodrakon's jaw fell. "You did what?"

"I know what you're thinking." Argyros shook his head, and wished he hadn't. "Aii! I haven't had a hangover like this since—" He paused, trying to recall the last time he'd hurt himself so badly. The memory brought sudden sharp pain, though it was a dozen years old now: not since he drank with Riario the Italian doctor after Argyros' wife and infant son died of smallpox. He forced his mind away from that. "Do you want to hear something truly absurd? I only had four cups."

Concern returned to the Master of Offices' face. "And you're in this state? You ought to see a physician."

"No, no," Argyros said impatiently. "The innkeeper told me it was something new and strong." His eyes went to the icon on the wall, an image of the patron saint of changes. "By St. Mouamet, he wasn't wrong, either."

He dipped his head and crossed himself, showing respect for the image of the saint. No wonder Mouamet was the patron of changes, the magistrianos thought; his own life had been full of them. Born a pagan Arab in lands outside the Empire, he had accepted Christianity on a trading journey to Syria, and abandoned his camels for a monastery. A few years later, a great Persian invasion sent him fleeing to Constantinople, where he learned Greek: learned it so well, in fact, that even now, seven centuries later, he was spoken of in the same breath as Romanos the Melodist as one of the greatest hymnographers the church had ever known. He died, full of years, as archbishop of New Carthage in distant Ispania.

Lakhanodrakon was eyeing the image, too. He was a pious man, but one who also turned his piety to practical ends. "Just as they were in Mouamet's time, the Persians are stirring again."

That was plenty to alarm Argyros, decrepit though he felt. "Troops on the move?" he demanded. The Roman Empire and Persia, Christ and Ohrmazd, were ancient rivals, dueling every generation, it seemed, for mastery in the near east. Few wars were on the scale of the one that had forced Mouamet to Constantinople, but any attack would lay provinces waste.

"Nothing quite so bad, praise God," Lakhanodrakon answered, following Argyros' thought perfectly. "There's trouble in the Caucasus, though."

"When isn't there?" Argyros replied, and drew a cynical chuckle from the Master of Offices. Precisely because all-out war between them could

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be so ruinous, Rome and Persia often dueled for advantage on the fringes of their empires, intriguing among the clientkings of the mountains between the Black and Caspian Seas and the tribal chieftains of the Arabian peninsula. "What have you heard now?" the magistrianos asked.

"It's Alania," Lakhanodrakon said; Argyros abruptly realized this was what the Master of Offices had come to see him about. He wished Lakhanodrakon had named a different principality. Alania really mattered to both Rome and Persia, because the most important passes from the Caucasus up into the steppe were there. A prince of Alania who went bad could let the nomads in, and channel them toward one empire or the other.

The magistrianos asked, "Is prince Goarios thinking of going over to sun-worship, then?"

"God may know what Goar is thinking, but I doubt if anyone else does, Goar himself included." Lakhanodrakon betrayed his eastern origin by leaving the Greek suffix off the prince's name. After a moment, the Master of Offices went on, "Truth to tell, I have very little information of any sort coming out of Alania, less than I should. I thought I would send you to find out how things are there."

Magistrianoi, among other things, were spies. "Alania, eh? I've never been in the Caucasus," Argyros murmured. He glanced again at the image of St. Mouamet. His life, it seemed, was about to see one more change.

That thought led to another, as yet only half-formed. "I suppose I'll go in as a merchant."

"Whatever you like, of course, Basil." George Lakhanodrakon valued results more than methods, which made him a good man to work for.

Still thinking out loud, Argyros mused, "I ought to have something new and interesting to sell, too, to get me noticed at Goarios' court." The magistrianos rubbed his temples; it was hard to make his wits work, with his head pounding the way it was. He snapped his fingers. "I have it! What better than this popskull drink that has me cringing at my own shadow?"

"Is it really as vicious as that?" Lakhanodrakon waved the question aside. "Never mind. I think you have a good idea there, Basil. Nothing would make Goar happier than a new way to get drunk, unless you've figured out how to bottle a woman's cleft."

"If I knew that one, I'd be too rich to work here." But Argyros, headache or no, focused too quickly and thoroughly on the problem he had been set to leave much room for jokes. "Superwine ought to be a good way to pry answers out of people, too; they're drunk before they know it—I certainly was, anyhow. The more anyone wants to talk or sing or carry on, the more I'll learn."

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"Yes, of course. I knew in my heart you were the proper man to whom to give this task, Basil. Now my head also sees why that's so." It was Lakhanodrakon's turn to glance again at the icon of St. Mouamet. "When something new comes up, you know what it's good for."

"Thank you, sir." Argyros knew the Master of Offices was thinking of such things as the archetypes, the little clay letters that let a man produce any number of copies of any message he cared to write. He did not believe Lakhanodrakon knew of his role in showing that a dose of cowpox could prevent smallpox. He claimed no credit there; losing his family was too high a price for glory.

As he had before, he shoved that thought down and returned to the business at hand. "I'm off to Priskos' wineshop, then."

"Excellent, excellent." Lakhanodrakon hesitated, added, "Bring back a bottle for me, will you?"

Argyros rode east down the Mese, Constantinople's main street, from the Praitorion to the imperial palaces. There he picked up a squad of excubitores, reasoning that Priskos might need persuading to part with the secret of his new drink. Having a few large, muscular persuaders along seemed a good idea.

For their part, the imperial bodyguards had trouble believing the assignment that had fallen into their laps. "You're taking us to a tavern, sir? On duty?" one trooper said, scrambling to his feet as if afraid Argyros might change his mind. "I thought I'd get orders like that in heaven, but no place else."

The magistrianos led his little band north through the Augusteion, the main square of the city (all through the Empire, Constantinople was *The polis—the* city). The morning sun turned the light-brown sandstone exterior of the cathedral of Hagia Sophia—Holy Wisdom—to gold. Still, that exterior was plain when compared to the glories within.

The church of St. Mary Hodegetria lay a few furlongs east and north of Hagia Sophia. It was close by the sea wall; as he approached, Argyros heard the waves of the Sea of Marmara slap against stone. None of Constantinople was more than a couple of miles from the sea, so that sound pervaded the city, but here it was foreground rather than background.

Argyros had to use the church as a base from which to cast about a bit to find Priskos' tavern. It was not one of his usual pothouses; he'd stopped in more or less by accident while on his way back to the Praitorion from the seawall gate of St. Barbara. He got no help finding the place from the locals, who had a tendency to disappear as soon as they spotted the gilded shields and long spears the excubitores carried.

The magistrianos spotted an apothecary's shop and grunted in satis-

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faction—Priskos' was only a couple of doors down. He turned to the excubitores. "Follow me in. I'll stand you all to a couple of drinks. Back me if you need to, but St. Andreas"—Constantinople's patron—"help you if you break the place apart for the sport of it."

The soldiers loudly promised good behavior. Knowing the breed, Argyros also knew how little promises meant. He hoped for the best, and hoped Priskos would cooperate.

The taverner was sweeping the floor when Argyros came in. So early in the day, only a couple of customers were in the place, nodding over winecups. Looking up from his work, Priskos recognized the magistrianos. "Good morning to you, sir," he said, smiling. "How are you tod—" He stopped abruptly, the smile freezing on his face, as the excubitores tramped in and plunked themselves down at a pair of tables.

"Fetch my friends a jar of good Cypriot, if you'd be so kind," Argyros said. To remove any possible misunderstanding, he handed Priskos a tremissis, a thin gold coin worth a third of a nomisma. "I expect this will even pay for two jars, since they'll likely empty the first."

"I think it should," Priskos said dryly; for a man still in his twenties, he did not show much of what he was thinking. He brought the jar and eight cups on a large tray; while he was serving the excubitores, one of his other customers took the opportunity to sidle out the door.

Once the soldiers were attended to, Priskos turned back to Argyros. "And now, sir, what can I do for you?" His tone was wary, no longer professionally jolly.

Argyros gave his name and title. Priskos looked warier yet; no one, no matter how innocent, wanted a magistrianos prying into his affairs. Argyros said, "I'd be grateful if you showed me how you make your *yperoinos*."

"I knew it! I knew it!" Try as he would, the innkeeper could no longer keep frustrated rage from his voice. "Just when I begin to work my trade up to where I can feed my family and me with it, somebody with a fancy rank comes to steal it from me."

The excubitores started to get up from their seats. Argyros waved them down. "You misunderstand. What stock of yours I buy, I will pay for," he told Priskos. "If you use some process only you know (as I dare say you do, for I've had nothing like your superwine, and I've traveled from Ispania to Mesopotamia), the fisc will pay, and pay well, I promise. Can't you see, man, what a boon such strong drink could be to those in my service?"

"Pay, you say? How much?" Priskos still sounded scornful, but calculation had returned to his eyes. "By St. Andreas, sir, I'd not sell my secret to another taverner for a copper follis less than two pounds of gold."

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"A hundred forty-four nomismata, eh? You'd only get so much once or twice, I think; after that, people who wanted to learn would be able to pit those who knew against one another, and lower the price. Still—" Argyros paused, asked, "Do you read and write?"

Priskos nodded. A majority of men in Constantinople had their letters.

"Good. Fetch me a pen and a scrap of parchment, aye, and a candle too, for wax." When Argyros had the implements, he scrawled a few lines, then held the candle over the bottom of the parchment until several drops of wax fell. He thrust the signet ring he wore on his right index finger into the little puddle. "Here. It's no imperial chrysobull with a golden seal, but the staff at the offices of the Count of the Sacred Largesses, in whose charge the mint is, should accept it. Ask especially for Philip Kanakouzenos; he will recognize my hand."

The taverner's lips moved as he worked his way through the document. Argyros knew when he got to the key phrase, for he stopped reading. "Four pounds of gold!" he exclaimed. He studied the magistrianos with narrowed eyes. "You swear this is no fraud to deceive me?"

"By the Father, the Son, and the Holy Spirit, by the Virgin, by St. Andreas who watches over the city, by St. Mouamet whom I have come to recognize as my own patron, I swear it. May they damn me to hell if I lie," Argyros said solemnly. He crossed himself. So did Priskos and a couple of the excubitores.

The innkeeper tugged at his beard for a moment, then tucked the document inside his tunic. "I'm your man. You deal fairly with me, and I will with you." He held out his hand.

Argyros shook it. "Good enough. Maybe you'll fetch these good fellows that second jar of Cyprian, then, and show me what there is to see."

Priskos set the wine before the soldiers, then went to a door at the back of the taproom. It had, Argyros saw, a stouter lock than the one that led out to the street. Priskos took a key from his belt. The lock clicked open. "Right this way, sir."

Argyros felt his head start to swim as he stepped in. A small fire burned in a stone hearth sunk in the center of the floor. Above it hung a cauldron which, by the smell, was full of hot wine. The combination of heat and wine fumes was overpowering.

Over and around the cauldron was a copper contraption, a large one of thin metal. The hearth's high walls shielded most of it from direct exposure to the fire. The bottom of the cone had a lip that curved inward, and lay in a basin of water shaped to match it.

Priskos put out the fire. "I would have had to do that soon anyway," he told Argyros. He stuck his finger in the basin, nodded to himself. "The cooling bath is getting too warm." He undid a plug; water from the basin ran into a groove in the floor and out under a door that led, Argyros

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supposed, to the alley behind the tavern. The innkeeper put the plug back, lifted a bucket, and poured fresh and presumably cool water into the basin till it was full again. The water level was just below the edge of the inner lip.

"I hope you'll explain all this," Argyros said.

"Yes, yes, of course." Priskos splashed water on the copper cone till it was cool enough to touch. Then he picked it up. That inner lip also had a cork. He held a cup under it, pulled it out. An almost clear liquid flowed into the cup. "Taste," he invited.

Argyros did. The way the stuff heated the inside of his mouth told him it was superwine.

Priskos said, "I got the idea from my brother Theodore, who makes medicines."

"Is he the one with the apothecary's store a few doors down?"

"You saw it, eh? Yes, that's him. One of the things he does is boil down honey to make it thicker and stronger." Priskos paused. Argyros nodded; he knew druggists did that sort of thing. The innkeeper went on, "I thought what worked with honey might do the same with wine."

The magistrianos waved at the curious equipment. "So why all this folderol?"

"Because it turned out I was wrong, sir, dead wrong. The more I boiled wine, the less kick whatever was left in the pot had. I was boiling out what makes wine strong, not—what word do I want?—concentrating it, you might say."

Argyros ran his hands through his neat, graying beard. He thought for a moment, then said slowly, "What you're doing here, then, is getting back what you were boiling away, is that right?"

The taverner eyed him with respect. "That's just it, sir, just it exactly. Have you ever seen how, when you blow your warm breath on a cold window, the glass will steam over?" Again he waited for Argyros to nod before resuming, "That's what I do here. The wine fumes steam on the cool copper, and I collect them as they run down."

"No wonder you charge so much," the magistrianos observed. "You have the fuel for the fire to think about, and the work of tending this thing, and I don't suppose one jug of wine yields anything like a jug's worth of *yperoinos*."

"Not even close," Priskos agreed. "It's more like ten to one. Besides the fumes that get away, if you boil the stuff too long, you see, then it starts weakening again. You have to be careful of that. One way to up your yield a little is to keep sprinkling cold water on the outside of the cone. But you have to keep doing that, though, or pay someone to. I don't pay anyone—he'd just sell the secret out from under me."

"You sound as though you have all the answers." Argyros rubbed his

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chin again. "How long have you been playing around with this scheme, if I may ask?"

"I guess it's about five years now, if you count a couple of years of fooling about with things that turned out not to work," the taverner answered after a moment's thought. "Once I figured out what I had to do, though, I spent a lot of time building up my stock; I wanted to make *yperoinos* a regular part of my business, not just a passing thing I'd brew up now and again. I still have hundreds of jars down in the cellar."

"Well, God be praised!" Argyros exclaimed. He was normally a taciturn, even a dour man, but that was better news than he had dared hope for. "What do you charge for each jar?"

"Two nomismata," Priskos said. "You have to remember, it's not like Cyprian. Two jars would have your bully boys out there asleep under their tables, not just happy."

"I'm quite aware of that, I assure you." Remembering how he had felt the day before made the magistrianos shudder.

But the strength of the stuff was the reason he wanted it. "I'll give you three a jar, on top of what I've already paid you, if I can buy out every jar you have."

"Yes, on two conditions," Priskos said at once.

Argyros liked the way the younger man made up his mind. "Name them."

"First, I have to get my gold from the Count of the Sacred Largess. Second, let me keep half a dozen jars for myself and my friends. Out of so many, that won't matter to you."

"Yes to the first, of course. As for the second, keep three. You'll be able to afford to make more later."

"I will at that, won't I? All right, I'd say we have ourselves a bargain." Priskos stuck out his hand. Argyros clasped it.

The caravan wound through the mountains toward the town of Dariel, the capital, such as it was, of the kingdom of the Alans. Even in late summer, snow topped some of the high peaks of the Caucasus. The mountains were as grand as the Alps, which till this journey had been the most magnificent range Basil Argyros knew.

"Good to be in a big city, eh?" said one of the caravan guards, a local man wearing a knee-length coat of thick leather reinforced with bone scales and carrying a small, round, rivet-studded shield. His Greek was vile; Argyros was sure he had never been more than a couple of valleys away from the farm or village where he had been born. No one who had traveled would have called Dariel a big city.

In many ways, the magistrianos thought as the caravan approached the walls of the town, the Caucasus were the rubbish-heap of history.

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Dariel was a case in point. The Romans had built the fortress centuries ago, to keep the nomads from coming down off the steppe. When the Empire was weak, the Georgians manned it themselves, at times supported by Persian gold. The Alans, the present rulers hereabouts, had been nomads themselves once. A crushing defeat on the steppe, though, sent them fleeing into the mountains. Though they played Rome and Persia off against each other, they were as interested as either in guarding the pass that lay so near Dariel.

They had been, at any rate, until Goarios. Neither the Emperor nor the King of Kings could count on what Goarios would do. Trouble was, the King of the Alans was as lucky as he was erratic. All that did was make him twice the nuisance he would have been otherwise.

The gate guards had been dealing with the merchants in the caravan one by one. When they reached Argyros and his string of packhorses, he had to abandon his musings. "What you sell?" an underofficer asked in bad Persian. Both imperial tongues, like money from both realms, passed current all through the Caucasus, more so than any of the dozens of difficult, obscure local languages.

For his part, Argyros spoke better Persian than the Alan trooper. "Wine, fine wine from Constantinople," he replied. He waved at the jugs strapped to the horses' backs.

"Wine, is it?" White teeth peeked through the tangled forest of the underofficer's beard. "Give me taste, to see how fine it is."

The magistrianos spread his hands in sorrow. "Noble sir, I regret it may not be," he said, using the flowery phrases that came so readily to Persian. "I intend to offer this vintage to no less a person than your mighty king himself, and would not have his pleasure diminished." Seeing the guard scowl, he added, "Here is a silver dracham. May it take away your thirst."

The gate guard's grin reappeared as he stuffed the Persian coin into his pouch. He waved Argyros forward into Dariel.

One of the magistrianos' comrades, a gray-eyed man named Corippus, came up and murmured, "A good thing he didn't check the jars." He spoke the guttural north African dialect of Latin, which no one in the Caucasus would be likely to understand; even Argyros had trouble following it.

Since he could not use it himself, he contented himself with saying, "Yes." All the jars looked like winejars, but not all of them held wine, or even superwine. In the same way, the couple of dozen men who had accompanied the magistrianos from Constantinople looked like merchants, which did not mean they were.

The horses moved slowly through Dariel's narrow, winding streets. Small boys stared and pointed and called out, as small boys will any-

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where. Some of them were touts for inns. After some haggling, Argyros went with one. From the way the lad described it, his master Supsa's place was what God had used as a pattern for making heaven.

The magistrianos carefully did not ask which god the boy meant. Dariel held both Christian churches with domes in the conical Caucasian style and fire-temples sacred to the good god Ohrmazd whom the Persian prophet Zoroaster praised. Churches and fire-temples alike were thick-walled, fortress-like structures; most had armed guards patroling their grounds. Nowhere but in this region that both empires coveted did these faiths have such evenly balanced followings, nowhere else was there such strife between them. Goarios was a Christian (or at least had been, the last time Argyros heard), but it would not do to count on that too far.

Native Georgians and their Alan overlords were both on the streets, usually giving one another wide berths. Language and dress distinguished them. Not even Satan, Argyros thought, could learn Georgian, but the Alan tongue was a distant cousin of Persian. And while the natives mostly wore calf-length robes of wool or linen, some Alans still clung to the leather and furs their ancestors had worn on the steppe. They also let their hair grow long, in greasy locks.

Some real nomads, slant-eyed Kirghiz, were also in the market square. They stared about nervously, as if misliking to be so hemmed in. By their fine weapons and gold saddle-trappings, they were important men in their tribe. Argyros almost wished he had not spotted them. They gave him one more thing to worry about, and he had plenty already.

Supsa's inn proved more than adequate. The stableman knew his business, and the cellar was big enough to store the winejars. Argyros, who from long experience discounted nine tenths of what he heard from touts, was pleased enough. He did his best not to show it, dickering long and hard with Supsa. If he had more money than a run-of-the-mill merchant, that was his business and nobody else's.

The mound of pillows he found in his chamber made a strange but surprisingly comfortable bed. The next morning, fruit candied in honey was not what the magistrianos was used to eating for breakfast, but not bad, either. He licked his fingers as he walked toward Goarios' palace, a bleak stone pile that seemed more citadel than seat of government.

One of Goarios' stewards greeted him with a superciliousness the grand cubicularius of the Roman Emperor would have envied. "His highness," the steward insisted, "favors local wines, and so would have scant interest in sampling your stock."

Argyros recognized a bribery ploy when he heard one. He did not mind paying his way into Goarios' presence; he was not, after all, operating with his own money. But he did want to take this fellow's toploftiness down a peg. He had brought along a jar of *yperoinos*. "Perhaps you would

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care to see that its quality meets your master's standards," he suggested, patting the jar.

"Well, perhaps, as a favor for your politeness," the chamberlain said grudgingly. At his command, a lesser servant fetched him a cup. Argyros worked the cork free, poured him a good tot, and watched, gravely silent, as his eyes crossed and face turned red when he drank it down at a gulp. The steward came back gamely, though. "I may have been in error," he said, extending the cup again. "Pray give me another portion, to let me be sure."

Goarios' great hall was narrow, dark, and drafty. Petitioners worked their way forward toward the king's high seat. The magistrianos waited patiently, using the time in which he occasionally lurched ahead to examine the others in the hall who sought the king's favor.

He did not like what he saw. For one thing, the Kirghiz nobles he had spied in the market were there. For another, while one Christian priest, plainly a local, waited to make a request of Goarios, a whole delegation of Ohrmazd's clerics in their flame-colored robes sat a few paces ahead of the magistrianos. He could hear them talking among themselves. Their Persian was too pure to have been learned in the Caucasus.

As he drew closer, Argyros also studied the king of the Alans. Goarios was close to his own age, younger than he had thought. His face was long, rather pale, with harsh lines on either side of his mouth that disappeared into his thick beard. His eyes were black and shiny; he had somehow the air of a man who saw things no one else did. Whether those things were actually there, Argyros was not sure.

Goarios spent some time with the Kirghiz, even more with the Persian priests. The rumbles of Argyros' stomach were reminding him it was time for the noon meal when at last the steward presented him to the king. He stooped to one knee and bowed his head; only before the Avtokrator of the Romans or the Persian King of Kings would he have performed a full prostration, going down on his belly.

The steward addressed Goarios in Georgian. The king made a brief answer in the same tongue, then spoke to Argyros in Persian: "You have, Tskhinvali here tells me, a remarkable new potation, one I might enjoy. Is this so?"

"Your majesty, it is," the magistrianos answered in the same tongue. He handed the jar to the steward to pass on to Goarios. "Please take this as my gift, to acquaint you with the product."

Those opaque eyes surveyed Argyros. "I thank you. You must have great confidence, to be so generous." Goarios still used Persian. Argyros had heard he knew Greek, and suspected he was the victim of a subtle insult. He showed no annoyance, but waited silently while the king, as

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his steward had before him, had a cup brought. Unlike Tskhinvali, Goarios drank from silver.

The king drank. His eyes widened slightly and he rumbled deep in his throat, but he tolerated his first draught better than anyone else Argyros had seen. "By the sun!" Goarios exclaimed, a strange oath if he still followed Christ. He drank again, licked his lips. Suddenly he switched languages: he *did* speak Greek. "This is something new and different. How many jars have you to sell, and at what price?"

"I have several hundred jars, your majesty." Argyros also shifted to Greek. "They cannot, I fear, come cheap: not only is the preparation slow and difficult, but I have incurred no small expense in traveling to you. My masters back in Constantinople would flay me for accepting less than twenty nomismata the jar."

He expected the dickering to begin then, or Goarios to dismiss him to bargain with Tskhinvali or some other palace dignitary. He would have been satisfied to get half his first asking price. But the king of the Alans simply said, "Accepted."

Disciplined though he was, Argyros could not help blurting, "Your majesty?" The first confused thought in his mind was that this might be the only government-financed expedition in the history of the Empire to turn a profit. He had never heard of any others; he was certain of that.

Goarios took another pull. "Agreed, I said. Rarity and quality are worth paying for, in wine or women or—" He let his voice trail away, but his eyes lit, as if for an instant his inner vision grew sharp and clear. The moment passed; the king returned his attention to Argyros. "I have a banquet planned this evening—I am pleased to bid you join me. Perhaps to further the pleasure of all those present, you will consent to bring with you ten jars of your brew."

"Certainly, your majesty." Argyros had hoped the superwine would make him popular at court, but had not expected to succeed so soon. He regretted having to stay in character. Any failure, though, might be noticed, so he said, "Your majesty, ah—" He gave what he hoped was a discreet pause.

"You will be paid on your arrival, I assure you," Goarios said dryly. He added, "If you have found a companion, you may bring her to the feast. We do not restrict our women to their own quarters, as the tiresome custom is in Constantinople."

"You are most generous, your majesty." Argyros bowed his way out. The audience had gone better than he dared wish. He wondered why he was still nervous.

For the banquet, the magistrianos dug out the best robe he had brought. He had several finer ones back in Constantinople, including a really

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splendid one of thick sea-green samite heavily brocaded with silk thread. For a merchant of moderate means, though, that would have been too much. Plain maroon wool fit the part better.

The reputation of the *yperoinos* must have preceded it; eager hands helped Argyros remove the jars from the packhorses. Too eager—"Come back, you!" he shouted at one servitor. "Your king bade me bring ten jars. If my head goes up on the wall for cheating him, I know whose will be there beside it." That was plenty to stop the fellow in his tracks, the magistrianos noted: Goarios' men feared their king, then.

Horns, flutes, and drums played in the banquet hall. The music was brisk, but in the wailing minor key the Persians and other easterners favored. Argyros had heard it many times, but never acquired the taste for it.

The servants had not yet set out the tables for the feast. Guests and their ladies stood and chatted, holding winecups. When the chief usher announced Argyros' name and the other servants carried the jars of superwine into the hall, King Goarios clapped his hands above his head three times. Silence fell at once.

"Here we have the purveyor of a new and potent pleasure," the king declared, "than which what praise could be higher?" He used Persian. By now, Argyros had decided he meant no mockery by it; more courtiers used Persian than Greek here. Goarios beckoned the magistrianos toward him. "Come and receive your promised payment."

Argyros pushed his way through the crowded hall. He had no trouble keeping the king in sight; they were both taller than most of the people in the hall. Behind him, he heard the first exclamations of amazement as the guests began sampling the *yperoinos*.

"Two hundred nomismata," Goarios said when he drew near, and tossed him a leather purse over the heads of the last couple of men between them.

"I thank your majesty," Argyros said, bowing low when he and Goarios were at last face to face.

"A trifle," the king said with a languid wave. A woman stood by his side. Argyros had not got a good look at her before, for the crown of her head was not far above Goarios' shoulders. Her hair fell in thick black waves to her shoulders. She had bold, swarthy features and flashing dark eyes that glittered with amusement as she smiled saucily at the magistrianos. "Mirrane, this is Argyros, the wine merchant of whom I told you," Goarios said.

Recognizing her, the magistrianos felt ice form round his heart. He and Mirrane had met before, in Daras near the border between the Roman Empire and Persia, and in Constantinople itself. Both times, she had come unpleasantly close to killing him. She was a top agent of the King

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of Kings, the Persian equivalent, in fact, of himself. He waited woodenly for her to denounce him.

She turned her mocking gaze his way again. "I've heard of him," she said, speaking Greek with the throaty accent of her native tongue. "He is, ah, famous for the new products he purveys." Her attention returned to Goarios. "For what marvel did you reward him so highly?"

"A vintage squeezed, I think, from the thunderstorm," the king of the Alans replied. "You must try some, my dear." His hand slid round Mirrane's waist. She snuggled against him. Together they walked slowly toward the table where Goarios' servants had set out the *yperoinos*.

Argyros stared after them. He was too self-possessed to show his bafflement by scratching his head, but that was what he felt like. If Mirrane had become Goarios' concubine, she had to have influence over him. Of that the magistrianos had no doubt. The two of them had shared a bed a few times in Daras. Mirrane, Argyros was certain, could influence a marble statue, as long as it was a male one.

Why, then, was she letting him stay free? The only answer that occurred to Argyros was so she could ruin him at a time that better suited her purpose. Yet that made no sense either. Mirrane was skilled enough at intrigue to see that the longer a foe stayed active, the more dangerous he became. She was not one to waste so perfect a chance to destroy him.

He shrugged imperceptibly. If she was making that kind of mistake, he would do his best to take advantage of it.

After a while, servants began fetching in tables and chairs. Goarios, Mirrane still beside him, took his seat at the head table. That was the signal for the king's guests to sit down, too. Soon all were in their places but the group of Kirghiz, who would not move away from the superwine. One of them was already almost unconscious; two of his comrades had to hold him up. Stewards of ever higher rank came over to remonstrate with the nomads. At last, grudgingly, they went up to sit across the table from Goarios.

Back in the kitchens, Argyros thought, the cooks must have been tearing their hair, waiting for the dinner to start. They quickly made up for lost time. Grunting under the weight, servants hauled in platters on which rested roast kids, lambs, and geese. Others brought tubs of peas and onions, while the sweet smell of the new-baked loaves that also appeared filled the hall.

What was left of the superwine seemed reserved for Goarios' table, but jars from the sweet Caucasian vintages in the Alan king's cellars kept those less privileged happy. Argyros drank sparingly. He kept his eyes on Mirrane, again wondering what game she was playing.

None of his tablemates—minor Alan nobles, most of them, along with a few townsmen rich enough for Goarios to find them worth cultivat-

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ing—found his staring obtrusive. Desirable though she was, the magistrianos did not think they were watching Mirrane. The Kirghiz were busy making a spectacle of themselves.

In his army days, Argyros had fought the steppe nomads near the Danube, and even briefly lived among them. He knew the privation they endured, and knew how, to make up for it, they could gorge themselves when they got the chance. Reading of the huge feasts Homer described, he sometimes thought the heroes of the Trojan War had the same talent. Maybe the Alans' ancestors did, too, when they were a steppe people, but this generation had lost it. They gaped in astonished wonder as the Kirghiz ate and ate and ate.

The nomads drank too, swilling down *yperoinos* as if it were the fermented mares' milk of the plains. The one who had been wobbling before the banquet slid quietly out of his chair and under the table. Another soon followed him. The rest grew boisterous instead. They slammed fists down on the table to emphasize whatever points they thought they were making, shouted louder and louder, and howled songs in their own language. Argyros understood a few words of it; not many other people in the hall did. It sounded dreadful.

Servants cleared away platters, except, after a snarled warning, the ones in front of the Kirghiz. Goarios stood up, held his hands above his head. Silence descended. Eventually the Kirghiz noticed they were roaring in a void. They too subsided, and waited for the king to speak.

"Thank you, my friends, for sharing my bounty tonight," Goarios said in Persian. He paused for a moment to let those who did not know the tongue have his words interpreted, then resumed: "I know this would not seem like much in the way of riches to one used to the glories of Constantinople or Ctesiphon, but in our own small way we try."

This time, being safely inconspicuous, Argyros did scratch his head. Modesty and self-deprecation were not what he had come to expect from the king of the Alans.

Goarios continued, "Still and all, we have learned much from the Romans and from the Persians. Of all the folk under the sun"—here he glanced at Mirrane, who fondly smiled back his way (if Goarios had embraced the creed of Ohrmazd, Argyros was doubly sure now it was because he had first embraced an eloquent advocate for it)—"they are strongest, and also cleverest. That is no accident; the two qualities go hand in hand."

The king paused. His courtiers applauded. The Kirghiz nobles, those still conscious, looked monumentally bored. Argyros sympathized with them. If Goarios had a point, he was doing his best to avoid it.

Or so the magistrianos thought, until the king suddenly adopted the royal we and declared, "Though our realm is small at present, we do not

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see ourselves as less in wit than either the Emperor or the King of Kings." Both those rulers, Argyros thought tartly, had the sense not to go around boasting how smart they were.

Nevertheless, Goarios' words did have a certain logic, if a twisted one, behind them: "Being so astute ourself, it follows naturally that power will accrue to us on account of our sagacity, and on account of our ability to see the advantages of policies heretofore untried. As a result, one day soon, perhaps, the rich and famous in the capitals of the empires will have cause to envy us as we now envy them."

The courtiers applauded again. They seemed to know what their king was talking about—but then, Argyros thought, the poor devils had likely listened to this speech or something like it a good many times before. He had heard Goarios was a cruel man; now he was getting proof of it.

A couple of Kirghiz envoys also cheered the king of the Alans—or maybe the fact that he was done. The rest of the nomads had slumped into sodden slumber. Speaking of envy, Argyros envied them that.

Goarios was plainly convinced his address marked the high point of the evening, for no singers, dancers, or acrobats appeared afterwards to entertain his guests. Instead, the king waved to the doorway, showing that the festivities were over.

The banquet did not break up at once. As in Constantinople, the custom was for departing guests to thank their host for his kindness. Argyros joined the procession, sighing inwardly. He wished he could somehow get into Goarios' good graces without having anything to do with the king.

Still, Goarios greeted him effusively. "We are in your debt. You and your *yperoinos* have helped make this evening unique."

He used Greek, so as not to leave the name of the new drink dangling alone and strange in an otherwise Persian sentence. One of the Kirghiz understood the Roman Empire's chief tongue, and even spoke it after a fashion. Before Argyros could respond to the king, the nomad poked him in the ribs. "You this drink make, eh? Is good. Where you from?"

"Constantinople," the magistrianos replied. The Kirghiz's prodding finger distracted him from Goarios, whom etiquette demanded he should have answered.

"Ah, the city." The nomad was too drunk to care about etiquette, if he ever had. He poked Goarios in turn. "You, I, maybe one fine day we see Constantinople soon, eh?"

"Who would not wish such a thing?" Goarios' voice was smooth, but his eyes flickered.

Argyros bowed to the king. "To serve you is my privilege, your majesty." He turned to Mirrane. "And your lady as well." Maybe his di-

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rectness could startle something out of her, though he knew what a forlorn hope that was.

Sure enough, her equanimity remained absolute. With dignity a queen might have envied, she extended a slim hand to the magistrianos. He resented being made to dance to her tune, yet saw no choice but to take it. She said, "My master speaks for me, of course."

The magistrianos murmured a polite phrase, bowed his way out of the king's presence. Outside the castle, he hired a torchboy to light his way back to the inn. The boy, a Georgian lad, could follow Persian if it was spoken slowly and eked out with gestures. "Stop a moment. Hold your torch up," Argyros told him as soon as buildings hid them from Goarios' castle.

The boy obeyed. Argyros unrolled the tiny scrap of parchment Mirrane had pressed into his palm. He had to hold it close to his face to make out her message in the dim, flickering light. "Meet me alone tomorrow by the vegetable market, or I will tell Goarios who you are," he read.

Nothing subtle or oblique there, he thought as he put the parchment in his beltpouch. That did not mean she would not get what she wanted. She generally did.

"You're going to meet with her?" Corippus, when he heard Argyros' news the next morning, was openly incredulous. "What will the rest of us do once she's dealt with you? You can't tell me she has your good health foremost in her mind."

"I doubt that," Argyros admitted. He tried to sound judicious, and not like a man merely stating the obvious. He did bolster his case by adding, "If she wanted to bring me down, she could have done it simply last night, instead of going through this rigmarole. By the look of things, she has Goarios wrapped around her finger."

"Or somewhere," Corippus grunted. "This is folly, I tell you."

"Being exposed to Goarios is worse folly. One thing I know of Mirrane: she does not idly threaten."

Corippus made a noise deep in his throat. He remained anything but convinced. Argyros, however, headed the team from Constantinople, so the north African could only grumble.

The magistrianos tried to tease him out of his gloom. He waved round the cellar of Supsa's inn, pointing at the three *yperoinos*-cookers Corippus and his team had going. "You worry too much, my friend. Even if something does happen to me, the lot of you can go into superwine for true, and likely end up rich men here."

Corippus fell back into his harsh native dialect. "In this godforsaken lump of a town? Who'd want to?"

He had a point, Argyros thought. Nevertheless, the magistrianos

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turned a benign eye on Dariel as he made his way to the vegetable market. That was partly because, if he got through this confrontation with Mirrane, he would have a hold on her to counter the advantage she now held on him—he did not think, at any rate, that Goarios would be pleased to learn his paramour was arranging a secret rendezvous with another man. More important, though, was the prospect of matching wits with the best Persian Persia had. Mirrane was that, as Argyros had found more than once to his discomfiture.

To one used to the bounty of Constantinople, Dariel's vegetable market was a small, mean place. The city prefect's inspectors would have condemned half the produce on display. Argyros bought a handful of raisins and waited for Mirrane to come into the little square.

He was not sure what to expect. When with Goarios, she had dressed as a great lady, with brocaded robe and with bracelets and necklace of gleaming gold. He had also seen her, though, in a dancer's filmy garb, and once when she was artfully disguised as an old woman. Just recognizing her would constitute a victory of sorts.

He was almost disappointed to spot her at once. She wore a plain white linen dress, something that suited a moderately prosperous tradesman's wife, but she wore it like a queen. Copper wire held her hair in place; apart from that, she was bare of jewelry. Seeing Argyros, she waved and walked toward him, as if greeting an old friend.

"You have another new toy, do you, Basil?" Her voice held a lilting, teasing tone, of the sort a cat would use to address a bird it held between its paws. "What better way to swing a man toward you than dealing with him drunk, the more so if he's had so little he doesn't know he is?"

If anyone would realize why he had brought the *yperoinos*, it was she. He answered, "I'm not trying to turn a whole city on its ear, the way your handbills did in Daras."

"You turned the tables neatly enough on me in Constantinople. The trouble with the clay archetypes is that anyone can use them to make countless copies of his message. You saw that." She shook her head in chagrin, put her hand on his arm.

He pulled free. "Enough empty compliments," he said harshly. "Unfold your scheme, whatever it is, and have done, so I can start working out where the traps lie."

"Be careful what you say to me," she warned, smiling still. "Ohrmazd the good god knows how backwards Alania is, but Goarios' torturer, I think, would have no trouble earning his keep in Ctesiphon. In some things, he accepts only the finest."

"I dare say," the magistrianos remarked, recalling Corippus' sour jest.

"Oh, think what you will," Mirrane said impatiently. "I serve the King of Kings no less than you your Avtokrator. If my body aids in that service,

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then it does, and there is no more to be said about it." She paused a moment. "No, I take that back. I will say, Basil, that Goarios is not one I would have bedded of my own free choice, and that that is not true of you."

Ever since those few nights in Daras a couple of years before, Argyros had wondered whether the passion she showed then was real or simply a ploy in the unending struggle between Persia and the Roman Empire. He wondered still; Mirrane might say anything to gain advantage. That mixture of suspicious curiosity and anger roughened his words: "Say whatever you like. Whether or not you care a follis for him, Goarios dances to your tune, in bed and out."

Mirrane's laugh had an edge to it. "Were that so, I'd not be here talking with you now—you would have been a dead man the instant Tskhinvali called your name. But I need you alive.

For the first time, Argyros began to think she might be telling the truth, or some of it. She had no reason not to unmask him if she did fully control the king of the Alans. Trusting her, though, went against every instinct the magistrianos had, and against the evidence as well. "If Goarios is his own man, as you say, why has he turned his back on God's only begotten Son Jesus Christ and embraced your false Ohrmazd? Whence comes that, if not from you?"

"I find my faith as true as you yours," Mirrane said tartly. "As for Goarios, he is his own man, and his own god as well—the only thing he worships is himself. The words he mouths are whichever ones suit him for the time being. I saw that too late, and that is why I need your help."

"Now we come down to it," Argyros said.

Mirrane nodded. "Now indeed. What he intends, you see, is opening the Caspian Gates to the Kirghiz and as many other nomad clans as care to join them. His own army will join the nomads; he thinks he will end by ruling them all." Her sigh was full of unfeigned regret. "And to think that that was what I labored so hard to accomplish, and here I find it worse than useless."

Argyros found it appalling: it was George Lakhanodrakon's worst nightmare, come to life. The magistrianos said, "Why should you not be glad to see the nomads ravage Roman provinces?"

"I told you once—if that were all, you would be dead. But Goarios and the men from the steppe have bigger plans. They want to invade Persia, too. Goarios thinks to play Iskander." Argyros frowned for a couple of seconds before recognizing the Persian pronunciation of the name Alexander. Many had tried to rule both east and west in the sixteen hundred years since Alexander the Great; no one had succeeded.

Then again, no one had tried with the backing of the nomads. "You think he may do it, then," the magistrianos said slowly.

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"He might; he just might," Mirrane answered. "He is a man who believes he can do anything, and those are the ones who are sometimes right." She hesitated, added, "He frightens me."

That admission startled Argyros, who had never imagined hearing it from Mirrane. All the same, he said, "It's hard to imagine a conquering army erupting out of the Caucasus. The mountains here are a refuge of defeat, not stepping-stones to triumph." He spelled out the chain of thought he'd had coming into Dariel.

Mirrane's eyes lit. She followed him at once. He knew how clever she was. Her wit rather than her beauty made her truly formidable, though she was twice as dangerous because she had both.

She said, "This once, though, the Alans have raised up a leader for themselves. He is . . . strange, but sometimes that makes people follow a man more readily, for they see him as being marked by—well, by whatever god they follow." Her smile invited Argyros to notice the concession she had made him.

He did not rise to it. Over the centuries, the agents who served the Roman Empire had learned to gauge when diplomacy would serve and when war was required, when to pay tribute and when instead to incite a tribe's enemies to distract it from the frontier. If a hero had appeared in Alania, that long experience told Argyros what to do. "Kill him," the magistrianos said. "The chaos from that should be plenty to keep the Alans safely squabbling among themselves."

"I thought of that, of course," Mirrane said, "but, aside from being fond of staying healthy and intact myself, it's too late. The Kirghiz control the pass these days, not the Alans."

"Oh, damnation."

"Yes, the whole damn' nation," Mirrane echoed, her somber voice belying the lighthearted tone of the pun. "Their khan Dayir, I would say, is using Goarios for his own ends as much as Goarios is using him. And where Goarios would be Iskander if he could, Dayir also has one after whom he models his conduct."

Argyros thought of the nomad chieftains who had plagued the Roman Empire through the centuries. "Attila," he said, naming the first and worst of them.

Mirrane frowned. "Of him I never heard." The magistrianos was briefly startled, then realized she had no reason to be familiar with all the old tales from what was to her the distant west: Attila had never plundered Persia. But she knew of one who had: "I was thinking of the king of the Ephthalites, who long ago slew Peroz King of Kings by a trick."

Argyros nodded; Prokopios had preserved in Roman memory the story of that disaster. "Enough of ancient history, though," he said with the same grim pragmatism that had made him urge Mirrane to assassinate

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Goarios. "We need now to decide how to deal with this Dayir." Only when he noticed he had said "we" was the magistrianos sure he believed Mirrane.

She accepted that tacit agreement as no less than her due. "So we do. Unfortunately, I see no easy way. I doubt we'd be able to pry him and Goarios apart. Until they've succeeded, their interests run in the same direction."

"And afterwards," Argyros said gloomily, "will be too late to do us much good."

Mirrane smiled at the understatement. "Ah, Basil, I knew one day Constantinople would get round to sending someone to see what was going wrong in Alania: Goarios *will* brag, instead of having the wit to let his plans grow in the quiet dark until they are ripe. I'm glad the Master of Offices chose you. We think alike, you and I."

A hot retort rose to the magistrianos' lips, but did not get past. Despite the differences between them, there was much truth in what Mirrane said; he was reminded of it every time he spoke with her. Certainly he had more in common with her than with some Constantinopolitan dyeshop owner whose mental horizon reached no further than the next day's races in the hippodrome. "We use different tongues," he observed, "but the same language."

"Well said!" She leaned forward, stood on tiptoe to plant a kiss on his cheek. She giggled. "You keep your beard neater than Goarios—there's more room on your face. I like it." Laughing still, she kissed his other cheek, just missing his mouth.

He knew she took care to calculate her effects. He reached for her all the same. The touch of her lips reminded him of those few days back at Daras, when they had shared a bed before trying to do each other in.

Sinuous as an eel, she slipped away. "What would be left of you, if you were caught molesting the king's kept woman?" She abruptly turned serious. "I must get back. Leaving the palace is always a risk, but less so at noon, because Goarios sleeps then, the better to roister at night. But he'll be rousing soon, and might call for me."

Argyros could say nothing to that, and knew it. He watched Mirrane glide across the market square; she moved with the grace of a dancer, and had once used that role as a cover in Daras. The magistrianos stood rubbing his chin in thought for several minutes after she finally disappeared, then made his own way back to Supsa's inn.

All the way there, his mind kept worrying at the problem she posed, as the tongue will worry at a bit of food caught between the teeth until one wishes he would go mad. Equally stubborn in refusing to leave his thoughts was the feel of her soft lips. That annoyed him, so he prodded

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at his feelings with characteristic stubborn honesty until he began to make sense of them.

In the years since his wife and son had died, he'd never thought seriously about taking another woman into his life. That came partly from the longing he still felt for Helen. More sprang from his unwillingness to inflict on any woman the lonely life a magistrianos' wife would have to lead, especially the wife of a magistrianos who drew difficult cases. In the past five years he had been to Ispania and the Franco-Saxon kingdoms, to Daras, and now he was here in the Caucasus. Each of those missions was a matter of months, the first close to a year. It was not fair to any woman to make her turn Penelope to his Odysseus.

With Mirrane, though, that objection fell to the ground. She was at least as able as he to care for herself in the field. And if—if!—she spoke the truth about how she reckoned their brief joining in Daras, he pleased her well enough, at least in that regard. There was, he remembered, far more to love than what went on in bed, but it had its place, too.

He started laughing at himself. Mirrane was also a Persian—enemies by assumption, in almost Euclidean logic. She worshiped Ohrmazd. She was sleeping with Goarios, and keeping his nights lively when the two of them were not asleep. The only reason she was in the Caucasus at all was to seduce the king of the Alans away from the Roman Empire, in the most literal sense of the word. Not only that, if—if!—she spoke the truth, both Constantinople and Ctesiphon faced deadly danger from Goarios' machinations.

When all those thoughts were done, the thought of her remained. That worried him more than anything.

Corippus scowled at the magistrianos. "That accursed potter has raised his price again. And so has the plague-taken apothecary."

"Pay them both," Argyros told him. "Yell and scream and fume as if you were being bankrupted or castrated or whatever suits your fancy. That's in keeping with our part here. But pay them. You know what we need."

"I know you've lost your wits mooning over that Persian doxy," Corippus retorted, a shot close enough to the mark that Argyros felt his face grow hot. He was glad they were in the dimly lit cellar, so his lieutenant could not see him blush. But Corippus, after grumbling a little more, went on, "However much it galls me, I have to say the wench is likely right. There'd not be so many stinking Kirghiz on the streets if they weren't in league with Goarios, and she'd've long since nailed us if she didn't think they meant to do Persia harm along with the Empire."

Argyros had reached exactly the same conclusions. He said so, adding,

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"I'll be hanged if I can tell how you'd know how many Kirghiz are in Dariel. You hardly ever come up out of here, even to breathe."

Corippus chuckled dryly. "Something to that, but someone has to keep the superwine cooking faster than Goarios and his cronies guzzle it down. Besides which, I don't need to go out much to know the nomads are thick as fleas. The stench gives 'em away."

"Something to that," the magistrianos echoed. Strong smells came with cities, especially ones like Dariel, which had only a nodding acquaintance with Roman ideas of plumbing and sanitation. Still, the Kirghiz did add their own notes, primarily horse and rancid butter, to the symphony of stinks.

Corippus said, "Any which way, I'm happier to be down here than upstairs with you and Eustathios Rhangabe. Worst thing can happen to me here is getting burned alive. If Eustathios buggers something up, I'll be scattered over too much landscape too fast to have time to get mad at him."

That was a truth Argyros did his best to ignore. He said, "The innkeeper thinks Rhangabe's some new sort of heretic who isn't allowed to eat, except with wooden tools. I don't know whether he wants to burn him or convert him."

"He'd better convert," Corippus snorted. He and Argyros both laughed, briefly and self-consciously. They knew what would happen if Eustathios Rhangabe struck a spark at the wrong time.

The magistrianos went upstairs to the room the man from the arsenal at Constantinople was using. He knocked—gently, so as not to disturb Rhangabe. He heard a bowl being set on a table inside the room. Only then did Rhangabe come to the door and undo the latch.

As always, he reminded Argyros of a clerk, but a clerk with the work-battered hands of an artisan. "Hello, Argyros," he said. "It goes well, though that thief of a druggist has raised his price for sulfur again."

"So Corippus told me."

Rhangabe grunted. He was not a man much given to conversation. He went back to the table where he had been busy. He had shoved it close to the room's single small window, to give himself the best possible light—no lamps, not here.

Along with the bowl (in which a wooden spoon was thrust), a stout rolling pin lay on the table. By its position, Rhangabe had been working on the middle of the three piles there, grinding it from lumps to fine powder. The pile to the left was black, the middle one (the biggest) a dirty gray-white, and the one on the right bright yellow.

Several years before, Argyros had stolen from the Franco-Saxons the secret of what the Empire called hellpowder. He was perfectly willing to admit that Eustathios Rhangabe knew much more about the deadly

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stuff now. Rhangabe had headed the men at the arsenal who concocted the deadly incendiary liquid called Greek fire (the magistrianos did not know, or want to know, what went into *that*). When something even more destructive came along, he was the natural one to look to to ferret out its secrets. That he had not blown himself up in the process testified to his skill.

He took the spoon out of the bowl, measured a little saltpeter from the middle pile into a balance, grunted again, and scooped part of the load back onto the table. Satisfied at last, he tipped the balance pan into the bowl, vigorously stirred the contents, squinted, wetted a finger to stick it in so he could taste the mixture, and at last nodded in reluctant approval.

He picked up a funnel (also of wood) and put it in the mouth of a pottery jug. He lifted the bowl, carefully poured the newly mixed hellpowder into the jug. When it was full, he plugged it with an unusual cork he took from a bag that lay next to his bed: the cork had been bored through, and a twist of oily rag forced through the little opening.

Only when Rhangabe was quite finished did he seem to remember Argyros was still in the room. He jerked a thumb at the jars that lined the wall. "That's forty-seven I've made for you since we got here, not counting the ones we fetched from the city. All in all, we have plenty to blow a hole in Goarios' palace you could throw an elephant through, if that's what you want."

A couple of weeks before, the magistrianos would have seized the chance. Hearing Mirrane had made him wonder, though, and made him watch the fortresss to check what she said. He was certain now she had not misled him. Goarios might still rule Alania, but the Kirghiz ruled Goarios. The comings and goings of their leaders were one sign; another was the growing numbers of nomads on Dariel's streets.

By themselves, those might merely have bespoken alliance, but other indications said otherwise. The Kirghiz nobles treated Goarios' guards and courtiers with growing contempt, so much so that Tskhinvali, arrogant himself, complained out loud to Argyros of their presumptuousness. In the markets, the men from the steppe treated traders like servants.

That sort of thing could only go on so long. The Alans were themselves a proud people, while their Georgian subjects remembered every slight and carried on feuds among themselves that lasted for generations. Dariel did not have the feel of a place about to become a world-conqueror's capital. It seemed, Argyros thought, more like one of Eustathios Rhangabe's jugs of hellpowder a few seconds before someone lit the rag stuffed in the cork.

The magistrianos wished he could see Mirrane again—partly because

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he wanted to get a better feel for what was happening in the palace, and partly just because he wanted to see her. He avoided thinking about which desire was more important to him. In any case, he could not casually make an appointment with the king's mistress. She had to arrange to come to him.

He thought from time to time about changing that, about letting Goarios get hold of her note to him. Each time he held off. Doing that was dangerous and, worse, irrevocable. Moreover, with endless chances she had not betrayed him. Yet he fretted every day at how little he really knew of what was going on.

As things turned out, he found out with no help from Mirrane. He had broken a bronze buckle on one of his sandals, and was in the market dickering, mostly by signs, with a Georgian coppersmith for a replacement. Another local had set out several trays of knives in the adjoining stall.

Half a dozen Kirghiz rode by. One leaned down from the saddle with the effortless ease the nomads displayed on horseback, plucked a fine blade from a tray, and stuck it in his belt. His companions snickered.

The knifesmith shouted angrily and ran after the Kirghiz. The thief, amused at his fury, waited for him to catch up, then gave his beard a hard yank. The nomads laughed louder. Then the one who had taken the knife bellowed in pain—the knifesmith had bitten his hand, hard enough to draw blood.

The nomad lashed out with a booted foot. The knifesmith reeled away, clutching his belly and gasping for breath. All the Kirghiz rode on; now they were chuckling at their comrade.

Had the Georgian knifesmith been made of less stern stuff, the incident would have been over. But the local staggered back to his stall. "Kirghiz!" he shouted as he snatched up a blade. The nomads looked back. The Georgian had known exactly what weapon he was grabbing. He threw the knife. It went into the thief's chest. The nomad looked astonished, then slowly slid from the saddle.

The rest of the Kirghiz stared for a moment, first at their friend and then at the knifesmith. Quickly but quite deliberately, one of the nomads strung his bow, pulled out an arrow, and shot the Georgian in the face. The man gave a great bass shriek of anguish that made heads jerk round all over the market square. He ran a few steps, his hands clutching the shaft sunk in his cheek, then fell. His feet drummed in the dirt.

Argyros looked round to exchange a horrified glance with the coppersmith, but that worthy had disappeared. He was, the magistrianos decided, no fool. The locals in the square were surging toward the Kirghiz, as the sea will surge when driven by an angry wind. Argyros heard a

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harsh cry somewhere as a nomad on foot was mobbed. All the mounted ones near him had their bows out now.

He slipped away before any of the Kirghiz chanced to look in his direction. He had not got half a block out of the square when the noise behind him doubled and doubled again. He went from a walk to a trot. He had been caught in a street riot once before, in Constantinople. Once was plenty.

The tumult had not yet reached the inn where Argyros and his men were staying. All the same, Corippus was prowling round the courtyard, wary as a wolf that has taken a scent it mislikes. "How bad?" he asked when the magistrianos told him what had happened.

"With all the nomads in town? Bad," Argyros replied. "The Georgians hate 'em, the Alans hate 'em, and they hate everyone. I'd say we have to look to ourselves—Goarios' men will be too busy guarding the king and his nobles to pay attention to much else."

"Goarios' men will be hiding under their beds, more likely," Corippus snorted. His cold eyes raked the wall that surrounded the courtyard. He made a disgusted noise deep in his throat. "Too low, too shabby. How are we supposed to hold this place?" He shouted to a couple of stableboys, cursed them when they began to protest. They helped him close and bar the gates.

Supsa the innkeeper came rushing out at the noise of the gate panels squealing on their hinges. "What you doing?" he cried in bad Greek.

"He is trying to save you from being killed," Argyros snapped; the officer's rasp he put in his voice straightened Supsa up as if it had been a cup of icy water dashed in his face. The magistrianos added, "There's rioting in the market square, and it's spreading."

Supsa needed only a moment to take that in. "I have heavier bar in back," he said. "I show you where."

As soon as the stouter bar was in place, Argyros called all of his crew except Eustathios Rhangabe out of the inn. Like Corippus, the rest of the men were top combat troops. Some were imperial guards, others, like their leader, ex-soldiers who had joined the corps of magistrianoi. Every one was deadly with bow, spear, and sword.

"Fetch benches," Corippus ordered Supsa, "so they can see over the top of the wall to shoot." This time the taverner and his staff obeyed without question. Other traders came rushing out, clutching whatever weapons they had. Corippus put them on the wall too. "Who knows how well they'll do?" he grunted to Argyros. "The more bodies the better, though."

That got put to the test in minutes. Even while everyone in the courtyard had been working to turn it into a fortress, the noise of strife outside came closer and closer. The white-faced stableboys were just dragging

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a last bench against the wall when the mob came baying round the corner.

Supsa clambered onto a bench, stood on tiptoe so the rioters could recognize him. He shouted something in his native Georgian, presumably to the effect that he was just another local and so they should leave him alone.

Stones, bricks, and clods of horsedung whizzed past him. One caught him in the shoulder and sent him spinning to the ground. Argyros, less optimistic, had already ducked behind the wall. He peered over it again a moment later. A dozen rioters had hold of a thick wooden beam; the others, after much yelling, cleared a path so they could charge for the gate.

"Shoot!" the magistrianos cried at the same time as Corippus, in his excitement forgetting where he was, bellowed the identical word in Latin. Even without a command, everyone know what to do. Argyros' men pumped arrows into the mob with a speed and accuracy that left the genuine merchants gasping. Screams rose. The improvised ram never got within twenty feet of its intended target. The men who had carried it were down, moaning or motionless. The rest of the rioters suddenly discovered urgent business elsewhere.

"Mobs," Corippus said scornfully. "The bravest bastards in the world, till somebody fights back." Argyros was nodding grateful agreement when shouts of alarm came from the rear of the inn. Men leaped down from their benches and rushed to help the few beleaguered fellows there. "No, damn you, not everyone!" Corippus howled. "The same bloody thing'll happen here if we all go haring off like so many idiots!"

That plain good sense stopped several defenders in their tracks. By then, though, Argyros was already dashing round the inn toward the stables and other outbuildings. The rioters had found or stolen a ladder; more dropped down over the wall every minute.

Bowstrings thrummed. One of the invaders fell, screaming, while two more cursed. Others ran forward. They waved knives and clubs. But for all their ferocity, they were only townsmen, untrained in fighting. Even the merchants who ran with Argyros had better gear and knew more of what they were about. His own men went through their foes like a dose of salts.

Part of that, he suspected, was what helped some women get through childbirth so much better than others: knowing and understanding the process would hurt, and carrying on regardless. He saw a rioter who took a minor knifewound in his forearm forget everything else to gawp at it. The fellow never saw the bludgeon that stretched him senseless in the dirt.

An instant later, the magistrianos got the chance to test his theory.

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A club thudded into his ribs. He gasped, but managed to spin away from the rioter's next wild swing. After that, drilled reflex took over. He stepped in, knocked away the club—it looked to be a table leg—with his left hand, thrust his dagger into the man's belly. The Georgian might never have heard of defense, and it was too late for him to learn it now.

By then, Argyros had come quite close to his real target, the ladder leaning against the rear wall. A man was climbing over the wall. The magistrianos displayed his blood-smeared knife, grinned a ghastly grin. "Your turn next?" he asked. He had no idea whether the man knew Greek, but the message got through, one way or another. The fellow jumped down—on the far side of the wall. From the curses that followed, he landed on someone. Argyros knocked over the ladder.

The last few rioters inside Supsa's compound had been pushed back against the wall of the stable. Only traders still fought with them hand to hand. Argyros' men, professional survivors, shouted for their allies to get out of the way so they could finish the job with arrows.

"A lesson the townsfolk will remember," the magistrianos told Corippus. He rubbed at his ribcage, which still hurt. He knew he would have an enormous bruise come morning. But to his relief, he felt no stabbing pain when he breathed. He'd had broken ribs once before, and knew the difference.

"Bodies strewn here and there will make a mob think twice," Corippus agreed. "I'm just glad they didn't try to torch us."

Ice walked the magistrianos' spine. He'd forgotten about that. With jar after jar of hellpowder in Supsa's inn— He crossed himself in horror. *"Mè genoîto!"* he exclaimed: "Heaven forbid!"

"I don't think even a mob would be so stupid," Corippus said. "Fire'd mean the whole stinking town would go up. Of course," he added, "you can't be sure."

Argyros told his archers to shoot anyone they saw outside with a torch. For the moment, the inn seemed safe enough. Like any other scavengers, the mob preferred prey that did not fight back. Rioters went by—at a respectful distance—carrying their loot. At any other time, Argyros would have wanted to seize them and drag them off to gaol. Now, caught in chaos in a country not his own, all he did was scan the sky to make sure no plumes of smoke rose in it.

"Night before too long," Corippus observed. "That'll make things tougher."

"So it will." The magistrianos laughed self-consciously. In his concern for fire, he had not even noticed the deepening blue above. The din outside was still savage, and getting worse. Of itself, his hand bunched into a fist. "What's Goarios doing to stop this mess?"

"Damn all I can see—probably under the bed with his soldiers." Con-

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tempt filled Corippus' voice. "I'd say our new Alexander can't even conquer his own people, let alone anybody else's."

Yet soldiers did appear. Darkness had just settled in when a heavily armed party approached the front gate of Supsa's inn. Argyros recognized its leader as an officer he had seen several times in the palace. He stayed wary even so—the fellow might be taking advantage of the riot, not trying to quell it. "What do you want?" he shouted in Persian.

The officer's answer startled him too much to be anything but the truth: "You're the wine merchant? His majesty has sent us to collect the next consignment of your *yperoinos*. Here's the gold for it." He held up a leather sack.

With a curious sense of unreality, Argyros let him come up to the barred gate. The magistrianos counted the nomismata. The proper number were there. Shaking their heads as they went back and forth, Argyros' men fetched the jars of superwine and handed them to the officer's troopers over the top of the gate. When he had all of them, the officer saluted Argyros and led his section away.

All the magistrianos could think of was Nero, singing to his lyre of the fall of Troy while Rome burned around him. Dariel was not burning, but no thanks to Goarios.

The stout defense Argyros' band and the real traders had put up gave the rioters a bellyful. They mounted no fresh assaults. The magistrianos found the night almost as nervous as if they had. All around was a devils' chorus of screams, shouts, and crashes, sometimes close by, sometimes far away. They were more alarming because he could not see what caused them. He kept imagining he smelled more smoke than cooking fires could account for.

"Who's that?" one of his men called, peering at a shadow moving in the darkness. "Keep away or I'll put an arrow through you."

A woman laughed. "I've been threatened with worse than that tonight, hero. Go wake Argyros for me."

"Who are you to give me orders, trull?" the Roman demanded. "I ought to—"

"It's all right, Constantine. I know her," the magistrianos said. He looked out, but saw little. "I'm here, Mirrane. What do you want?"

"Let me inside first. If Goarios learns I've come, we're all done for. We may be anyhow."

"Are you going to open the gate for her?" Despite Mirrane's alarming words, Corippus plainly did not like the idea. "No telling who all's lurking there out past our torchlight."

Argyros nodded. Trusting Mirrane was harder than wanting her. He remembered, though, her supple dancer's muscles. "Can you climb a rope if we throw one out to you?" he called over the fence.

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She laughed again, not in the least offended. "Of course I can." A moment later she proved good as her word, dropping into the courtyard lightly and quietly as a veteran raider. She was dressed like one, too, in nondescript men's clothes, with her fine hair pulled up under a felt hat that looked like an inverted flowerpot. Few marauders, however, smelled of attar of roses.

Ignoring the curious glances the men in the courtyard were giving her, she baldly told Argyros, "Goarios knows you were in the marketplace where the riot started this afternoon. In fact, he thinks you're the person who got it started."

"Mother of God!" The magistrianos crossed himself. "Why does he think so?"

"You can't deny you were there—one of my, ah, little birds saw you." Mirrane sounded very pleased with herself. "As for why he thinks you threw that knife at the Kirghiz, well, I told the little bird to tell him that." She grinned as if she had done something clever, and expected Argyros to see it too.

All he saw was disaster. Those of his men who heard shouted in outrage. "I should have let Constantine shoot you," he ground out, his voice as icy as Corippus' eyes.

"Ah, but then you'd never have known, would you, not till too late. Now you—we—still have the chance to get away."

"I suppose you expect my men to give you an armed escort back to Persia."

Mirrane paid no attention to the sarcasm. "Not at all, because I'm not planning to go south." She paused. "You do know, don't you?"

"Know what?" Argyros' patience was stretched to the breaking point, but he would sooner have gone under thumbscrews than reveal that to Mirrane.

"That the whole Kirghiz army is through the Caspian Gates and heading for Dariel."

"No," Argyros said woodenly. "I didn't know that." With the chaos inside the town, that at first seemed a less immediate trouble than many closer to hand. Then the magistrianos ran Mirrane's words through his head again. "You're going to the Kirghiz?"

"To stop them, if I can. And you and yours are coming with me."

Argyros automatically began to say no, but checked himself before the word was out of his mouth. The pieces of the puzzle were falling together in his mind. "That's why your man fed Goarios that lying fairy tale!"

"To make you work with me, you mean? Well, of course, dear Basil." She reached out to stroke his cheek, which warmed and infuriated him at the same time. He hoped that did not show on his face, but suspected it did; Mirrane's smile was too knowing. But she held mockery from her

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voice as she continued, "I told you once that the nomads endanger both our states. Besides, you have a weapon we may be able to turn against them."

"The superwine, you mean?"

"Of course. The more Kirghiz who are drunk, and the drunker they are, the better the chance my plan has."

Being caught in her web himself, the magistrianos had a certain amount of sympathy for the nomads. There were some thousands of them and only one of her, but he was not sure that evened the odds. "We'll load the wagons," he said resignedly. He did not mention the hellpowder. He had used a little at Daras, but only a little. Mirrane would have trouble imagining how powerful more than half a ton of the stuff could be.

As Argyros set his men to work, Supsa came rushing up. "You leaving?" the innkeeper wailed. "No leave!"

"I fear I have very little choice," the magistrianos said. He glared at Mirrane. She smiled sweetly, hoping to annoy him further. He stamped away.

It was nearly midnight before the miniature caravan—wagons, packhorses, and all—rumbled out of the courtyard. The men on horseback looked less like traders than they had coming into Dariel. Some of them had worn mailshirts then too, but that was not where the difference lay. It was in their posture, their eyes, the hard set of their mouths. They were no longer pretending to be anything but soldiers. Even drunken rioters took one look and got out of their way.

"A good crew you have," Mirrane remarked. She was sitting by Argyros, who drove the lead wagon. It was full of *yperoinos*. In the last wagon of the four came Eustathios Rhangabe—as far as everyone else was concerned, he was welcome to baby the hellpowder along all by himself. If by some disaster that wagon went up, the magistrianos thought, it would take the flank guards and everything else with it, but sometimes the illusion of safety was as important as the thing itself.

Argyros' mouth twisted; that could also be said for the illusion of command. "They're dancing to your tune now," he growled. He would have lost his temper altogether had she come back with some clever comment, but she merely nodded. She was, he reminded himself, a professional, too.

He had worried about whether the gate crew would let them pass (for that matter, he had wondered if there would be a gate crew, or if they had left their posts to join the looting). They were there and alert, but their officer waved Argyros through. "Getting out while the getting's good, are you?" he said. "Don't blame you a bit—in your shoes, I'd do the same."

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"Not if you knew where we were going, you wouldn't," the magistrianos said, once the fellow was out of earshot. Mirrane giggled.

Argyros called a halt a couple of miles outside Dariel. "This is far enough," he said. "None of the trouble from town will follow us here, and we need rest to be worth anything come morning. We also need to find out just what this scheme is that we're supposed to be following." He gave Mirrane a hard look.

So did Corippus. "Why?" he asked bluntly. "Now that she doesn't have Goarios protecting her, why not turn her into dogmeat and go about our business?" Several men grunted agreement.

Mirrane stared back, unafraid. She said, "I might point out that, were it not for me, Goarios' soldiers would have you now."

"Were it not for you," Corippus retorted, "Goarios' soldiers would never have been interested in us in the first place." Again many of his comrades paused in the business of setting up camp to nod.

"She could have given us to the Alan king any time she chose," Argyros said. "She didn't."

"Till it served her purpose," Corippus said stubbornly.

"True enough, but are you saying it fails to serve ours, too? Do you really want the Kirghiz rampaging through Mesopotamia, or grazing their flocks in Kappadokia from now on? They endanger us as well as Persia. And if you're so eager to be rid of Mirrane, let us hear *your* plan for holding the nomads back." He hoped the north African would not have one.

When Corippus dropped his eyes, the magistrianos knew he had won that gamble. His subordinate, though, did not yield tamely. He said, "Maybe we could use the *yperoinos* to get the buggers drunk, and then—" He ran dry, as a waterclock will when someone forgets to fill it.

"And then what?" Argyros prodded. "Sneak through their tents slitting throats? There are a few too many of them for that, I'm afraid. If you have no ideas of your own, getting rid of someone who does strikes me as wasteful."

Corippus saluted with sardonic precision, threw his hands in the air, and stalked off to help get a fire started.

Mirrane touched Argyros' arm. In the darkness, her eyes were enormous. "I thank you," she whispered. "In this trade of ours, one gets used to the notion of dying unexpectedly, but I'd not have cared for what likely would have happened before they finally knocked me over the head."

Having been a soldier, Argyros knew what she meant. He grunted, embarrassed for a moment at what men could do—and too often did—to women.

"Why did you choose to save me?" Mirrane still kept her voice low, but the newly kindled fire brought an ironic glint to her eye. "Surely not

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for the sake of the little while we were lovers?" She studied the magistrianos' face. "Are you blushing?" she asked in delighted disbelief.

"It's only the red light of the flames," Argyros said stiffly. "You've been saying you know how to stop the Kirghiz. That's more than anyone else has claimed. You're worth keeping for that, if nothing else."

"If nothing else," she echoed with an upraised eyebrow. "For that polite addition, at least, I am in your debt."

The magistrianos bit back an angry reply. Mirrane had a gift for making him feel out of his depth, even when, as now, power lay all on his side. No woman since his long-dead wife had drawn him so, but Mirrane's appeal was very different from Helen's. With Helen he had felt more at ease, at peace, than with anyone else he had ever known. The air of risk and danger that surrounded Mirrane had little to do with the settings in which he met her; it was part of her essence. Like his first jolt of *yperoinos*, it carried a stronger jolt than he was used to.

To cover his unease, he returned to matters at hand. "So what is this precious plan of yours?" She stayed silent. He said, "For whatever you think it worth, I pledge I won't slit your throat after you've spoken, or harm you in any other way."

She watched him. "If your hard-eyed friend gave me that promise, I'd know what it was worth. You, though . . . with that long, sad face, you remind me of the saints I've seen painted in Christian churches. Should I believe you on account of that? It seems a poor reason."

"Sad to say, I am no saint." As if to prove his words, memories of her lips, her skin against his surged in him. Angrily, he fought them down.

Her lazy smile said she was remembering, too. But it faded, leaving her thoughtful and bleak. "If I tell you, I must trust you, and your land and mine are enemies. May you fall into the fire in the House of the Lie if you are leading me astray."

"I will swear by God and His Son, if you like."

"No, never mind. An oath is only the man behind it, and you suit me well enough without one." Still she said nothing. Finally Argyros made a questioning noise. She laughed shakily. "The real trouble is, the plan is not very good."

"Let me hear it."

"All right. We spoke of it once, in fact, in Goarios' palace. You said you remembered how the White Huns lured Peroz King of Kings and his army to destruction—how they dug a trench with but a single small opening, then concealed it. They fled through the gap, then fell on his army when it was thrown into confusion by the first ranks charging into the ditch. I had hoped to do something like that to the Kirghiz. They have little discipline at any time, and if they were drunk on your superwine, drunker even than they knew—"

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Argyros nodded. The scheme was daring, ruthless, and could have been practical—all characteristics he had come to associate with Mirrane. "You do see the flaw?" he said, as gently as he could.

"Actually, I saw two," she replied. "We don't have enough people to dig the ditch, and we don't have an army to use to fight even if it should get dug."

"That, ah, does sum it up," the magistrianos said.

"I know, I know, I know." Bitterness as well as firelight shadowed Mirrane's features. "At the end, I kept telling Goarios he was giving his country away by not keeping a tighter check on the nomads; I was hoping to use the Dariel garrison to do what I had in mind. But he still thinks he'll ride on the backs of the Kirghiz to glory—or he did, until the riots started. For all I know, he may believe it even now. He's had less use for me outside the bedchamber since I stopped telling him things he wanted to hear." She cocked her head, peered at Argyros. "And so here I am, in your hands instead."

He did not answer. His eyes were hooded, far away.

Mirrane said, "With most men, I would offer at once to go to their tents with them. With you, somehow I don't think that would help save me."

It was as if he had not heard her. Then he came far enough out of his brown study to reply, "No, it would be the worst thing you could do." Her glare brought him fully back to himself. He explained hastily, "My crew would mutiny if they thought I was keeping you for my own pleasure."

She glanced toward Corippus, shivered. "Very well. I don't doubt you're right. What then?"

"I'll tell you in the morning." The magistrianos' wave summoned a couple of his men. "Make sure she does not escape, but don't harass her either. Her scheme has more merit than I thought." They saluted and led Mirrane away.

Argyros called Corippus to him, spoke at some length. If defects lurked in the plan slowly taking shape in his mind, the dour north African would find them. Corippus did, too, or thought he did. Argyros had to wake up Eustathios Rhangabe to be sure. Through a yawn wide enough to frighten a lion, Rhangabe suggested changes, ones not so drastic as Corippus had thought necessary. The artisan fell asleep where he sat; Corippus and the magistrianos kept hammering away.

At last Corippus threw his hands in the air. "All right!" he growled, almost loud enough to wake Rhangabe. "This is what we came for—we have to try it, I suppose. Who knows? We may even live through it."

A small wagon train and a good many packhorses plodded north toward the Caspian Gates. The riders who flanked the packhorses seemed bored

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with what they were doing: a routine trip, their attitude seemed to say, that they had made many times before. If I see Constantinople again, Argyros thought half seriously, I'll have to do some real acting, maybe the next time someone revives Euripides.

A glance up from beneath lowered brows showed the magistrianos Kirghiz scouts. He had been seeing them for some time now, and they his band. He had enough horsemen with him to deter the scouts from approaching by ones and twos. For his part, he wanted to keep pretending he did not know they existed.

For as long as he could, he also kept ignoring the dust cloud that lay ahead. When he saw men through it, though, men who wore furs and leathers and rode little steppe ponies, he reined in, drawing the wagon to a halt.

"We've just realized that's the whole bloody Kirghiz army," he called to his comrades, reminding them of their roles as any good director would. "Now we can be afraid."

"You're too late," someone said. The men from the Empire milled about in counterfeit—Argyros hoped it was counterfeit—panic and confusion. His own part was to leap down from the wagon, cut a packhorse free of the string, then scramble onto the beast and boot it after the mounts his men were riding desperately southward.

The Kirghiz scouts gave chase. A few arrows hissed past. Then one of the nomads toppled from the saddle; Corippus was as dangerous a horse-archer as any plainsman. That helped deter pursuit, but Argyros did not think it would have lasted long in any case. The Kirghiz scouts were only human—they would want to steal their fair share of whatever these crazy merchants had left behind.

Argyros looked back over his shoulder: cautiously, as he was not used to riding without stirrups. One of the nomads was bending to examine the broken jars the magistrianos' horse had been carrying. Some of the contents must still have been cupped in a shard, for the Kirghiz suddenly jumped up and began pointing excitedly at the packhorses and wagons. Argyros did not need to hear him to know what he was shouting. Nomads converged on the abandoned *yperoinos* like bees on roses.

The poor fools who had provided such a magnificent windfall were quickly forgotten. Before long, they were able to stop and look back with no fear of pursuit. Corippus gave the short bark that passed for laughter with him. "After a haul like that, most of those buggers will have all the loot from civilization they ever dreamed of."

"Something to that," Argyros admitted. The thought made him sad.

One of his men put hand to forehead to shield his eyes from the sun as he peered toward the Kirghiz. He swore in frustration all the same, and turned to Argyros. "Can you get a better view, sir?"

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"Let's see." At his belt, along with such usual appurtenances as knife, sap, and pouch, Argyros carried a more curious device: a tube fitting tightly into another, with convex glass glittering at both ends. He undid it from the boss on which it hung, raised it to his eye, and pulled the smaller tube part way out of the larger one.

The image he saw was upside down and fringed with false colors, but the Kirghiz seemed to jump almost within arm's length. Argyros had learned the secret of the far-seer from more westerly steppe nomads more than a decade before; his success in ferreting it out had led to his career in the corps of magistrianoi. The artisans in Constantinople still had trouble making lenses good enough to use—most far-seers belonged to Roman generals, though the savants at the imperial university had seen some things in the heavens that puzzled them and even, it was whispered, shook their faith. Only because Argyros had learned of the far-seer in the first place was he entitled to carry one now.

He watched the Kirghiz nobles, some of whom had sampled superwine in Dariel, trying to keep their rank and file away from the wagons. They were too late. Too many ordinary nomads had already tasted the potent brew. The ones who'd had some wanted more; the ones who'd had none wanted some. Even under the best of circumstances, the nomads only obeyed orders when they felt like it. These circumstances were not the best. Argyros smiled in satisfaction.

"They all want their share," he reported.

"Good," Corippus said. The rest of the men nodded, but without great enthusiasm. If this part of the plan had failed, it could not have gone forward. The more dangerous portions lay ahead.

The Romans rode back toward Dariel. Eustathios Rhangabe was bringing up the last wagon, the one so different from the rest. A couple of outriders were with him; Mirrane's horse was tethered to one of theirs. Argyros had told them to shoot her if she tried to escape, and warned her of his order. All the same, he was relieved to see her with his men. Orders were rarely a match for the likes of her.

"You have your spots chosen?" the magistrianos asked Rhangabe.

The artisan nodded. "Six of them, three on either side."

"Basil, what are these madmen playing at? They won't talk to me," Mirrane said indignantly. "They aren't following what we talked about at all. All they've done is dig holes in the ground and put jugs of your strong wine in them. What good will that—?" Mirrane stopped in the middle of her sentence. Her sharp brown eyes flashed from Argyros to the wagon and back again. "Or is that *yperoinos* in them? Back in Daras, you had some trick of Ahriman—"

Argyros would have said "Satan's trick," but he understood her well enough. He might have known she would make the connection. His

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respect for her wits, already high, rose another notch. He said, "Well, without that army behind us, we do have to modify things a bit."

"The good god Ohrmazd knows that's true." Suddenly, startlingly, she grinned at the magistrianos. "You won't need to worry about my running off any longer, dear Basil. I wouldn't miss seeing this for worlds." So I can bring news of it back to the King of Kings, Argyros added silently.

He said, "Let's hope there's something interesting for you to see." He knew she was clever enough to add her own unspoken commentary: if not, nothing else matters, because we'll be dead.

He told off the half-dozen men who had done the digging, sent them back to the holes they had made. He detailed two more to keep Mirrane under guard. Regardless of what she said, he took no chances where she was concerned. Eustathios Rhangabe, of course, stayed with his wagon.

That left—Argyros counted on his fingers—fifteen men. He wished for four times as many. Wishing failed to produce them. "Double quivers," the magistrianos told the men he did have. Each of them carried, then, forty arrows. If every shaft killed, they could hardly slay one of ten Kirghiz.

How long would the nomads take to get thoroughly drunk? Certainly not as long as any of them expected. Argyros gauged the sun in the sky. He could not afford to wait for nightfall. He did not think he would have to.

Corippus had spent even more time in the imperial army than Argyros. Their eyes met; they both judged the moment ripe. Argyros raised his right hand. His comrades clucked to their horses, trotted north once more behind him.

They rode in silence, alert for Kirghiz scouts. Argyros used the farseer from horseback, though it made him vaguely seasick to do so. He saw no one. His confidence rose, a little. If the nomads were too busy soaking up their unexpected loot to bother with scouts, so much the better.

The horsemen topped a low rise. Corippus barked sudden harsh laughter. "Look at them!" he exclaimed, pointing. "They're like a swarm of bees round a honeypot."

The comparison was apt. The Kirghiz were milling in a great disorderly knot around the abandoned wagons and packhorses. Pulling out the farseer again, Argyros saw jars going from hand to hand. He watched one nomad, wearing a foolish expression, slide off his horse. Another reached down to snatch away the jug the fellow was holding.

"They're as ripe as ever they will be," the magistrianos said. "Let's go kick the honeypot over—and hope we don't get stung."

Some of the Kirghiz must have seen Argyros and his followers approach, yet they took no alarm. Argyros could hardly blame their leaders

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for that. No sane attackers would approach a foe so grotesquely outnumbering them, no more than a mouse would blithely leap into the fox's jaws.

The magistrianos drew up his tiny battle line not far inside archery range. He raised his arm, dropped it. Along with his men, he snatched up an arrow, drew his bow back to his ear and released it, grabbed for the next shaft.

They had all shot three or four times before the racket from the Kirghiz began to change timbre. Some of the nomads cried out in pain, others pointed and yelled at the suicidal maniacs harassing them, just as a man will point and shout at the mosquito that has just bitten his leg and buzzed off.

A few nomads began to shoot back, those who happened to be facing the right way, who were not too tightly pressed by their fellows, and who were sober enough to remember how to use their bows. Argyros and his comrades methodically emptied their quivers into the tight-packed mass. Those who knew fragments of the Kirghiz speech shouted insults at the nomads. They were not out to strike and skulk away; they wanted to be noticed.

When the outer ranks of nomads moved away from the wagons, the magistrianos' little force retreated a corresponding distance, but kept plying the Kirghiz with arrows. More and more nomads came after them.

Argyros yelled the most bloodcurdling curses he knew, then turned his horse and roweled it with his spurs. This flight was not like the one when he had abandoned the *yperoinos* wagons; the nomads were pursuing in earnest now.

One of his men shrieked as an arrow sprouted from his shoulder. The magistrianos knew others would also perish, either because some arrows had to hit with so many in the air or because some nomads had faster horses than some of his men. With the thunder of thousands of hooves behind him, he hoped some of his men had faster horses than the Kirghiz. Were the chase longer than the mile and a half or so that lay between Argyros' men and Eustathios Rhangabe's wagon, he knew none of his people would be likely to survive.

He glanced ahead and to the right. Yes, there behind a bush was one of the men who had come from Constantinople. Unless one knew where to look for him, he was almost invisible. Only the stragglers of the Kirghiz, who were pursuing with scant regard for order, would come near the fellow.

Argyros had to keep his attention on more immediate concerns. He did not see his countryman thrust a lighted candle at an oil-soaked rag, and noticed only peripherally when the fellow leaped up and dashed for another hole not far away.

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What happened moments after that was difficult to ignore, even for one as single-mindedly focused on flight as the magistrianos. The hellpowder in the buried jars ignited, and, with a roar louder and deeper than thunder, the ground heaved itself up. Earth, stones, and shrubs vomited from the new-dug crater.

Argyros' horse tried to rear. He roughly fought it down. He and the rest of the men from the Roman Empire had encountered hellpowder before, and knew what the frightful noise was. Even as the thought raced through Argyros' mind, another charge of the stuff went off, far over on the Kirghiz left. It should have been simultaneous with the one on the right, and was in fact close enough for Argyros to let out a pleased grunt.

The nomads, as much taken by surprise as their mounts, naturally shied away from the blasts. That bunched them more closely together and made it harder for them to keep up their headlong pursuit. Still, they were bold men, not easily cowed by the unknown. They kept after their quarry.

Another pair of blasts crashed forth, almost at the same instant, as the Romans dashed past the second prepared set of charges. These were nearer each other and nearer the path than the first ones had been. Argyros felt the booming reports with his whole body, not merely through his ears. Again he had to force his mount to obey his will.

He swung round in the saddle to look back at the Kirghiz. They were packed still more tightly now, wanting nothing to do with the eruptions to either side. He saw two horses collide. Both went down with their riders, and others, unable to stop, tumbled over them. Now the magistrianos' men were lengthening their lead over the nomads, except for the frontrunners out ahead of the pack. He grabbed an arrow, tried a Parthian shot at one of those. He missed, swore, and concentrated again on riding.

The Romans manning the third set of charges had their timing down to a science. They waited until their countrymen were past before touching off their stores of hellpowder. This last pair was so close to the path that dirt showered down on Argyros. His mount bolted forward as if he had spurred it. The nomads' ponies, on the other hand, balked at the sudden cataclysmic noise in front of them.

The last wagon appeared ahead. Eustathios Rhangabe dove out of it, then sprinted for the shelter of the rocky outcrop where, Argyros presumed, the last two Romans were holding Mirrane. The magistrianos hoped Rhangabe had accurately gauged the length of candle he had left burning atop one of the jars in the wagon. On second thought, hope did not seem enough. Jolts from Argyros' galloping horse made his prayer breathless, but it was no less sincere for that.

Around the wagon, invitingly set out, were open jars of *yperoinos*. None

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of the Romans paid any attention to them. The Kirghiz whooped with delight when they spied the familiar jars. Most of them tugged on the reins to halt their horses. Drinking was easier and more enjoyable work than chasing crazy bandits who shot back.

Several Roman riders were already diving behind the rocks where Rhangabe had found shelter; more dismounted and ran for them as Argyros drew up. He sprang from his horse. An arrow buried itself in the ground, a palm's breadth from his foot. Not all the nomads, worse luck, were pausing to refresh themselves.

The magistrianos peered over a boulder. He lofted a shot over the last few Romans at the pursuing Kirghiz. His fingers told him only three shafts were left in his quiver. He reached for one. If something had gone wrong with that wagon, saving them would not matter.

"How much longer?" Mirrane shouted at him.

"Why ask me?" he yelled back, irrationally annoyed. "Rhangabe lit the candle—why don't you ask—"

He was never sure afterward whether he said "him" or not. He had thought the blasts from a couple of jars of hellpowder loud and terrifying; this sound put him in mind of the roar that would accompany the end of the world. The earth shook beneath his feet. He threw himself face-down, his eyes in the dust and his hands clapped to his ears. He felt no shame at that; the rest of the Romans were doing exactly the same thing.

He was, though, the leader of this crew. Pride quickly forced him to his feet—he did not want his men to see him groveling in the dirt. He brushed at his tunic as he started to scramble over the rocks to find out what the blast had done.

Two others, he noticed, were already up and looking. One was Eustathios Rhangabe. Argyros did not mind that; if anyone could take hellpowder in stride, it would be a man who had dealt with the stuff for years. The other, however, was Mirrane.

He had only an instant in which to feel irked. Then she threw herself into his arms and delivered a kiss that rocked him almost as much as the hellpowder had. Her lips touched his ear. That was not a caress; he could feel them moving in speech. He shook his head. For the moment, at least, he was deaf. He was sorry when Mirrane pulled her face away from his, but she did not draw back far, only enough to let him see her mouth as she spoke. "It worked!" she was yelling over and over. "It worked!"

That brought him back to himself. "Let me see," he said, mouthing the words in the same exaggerated style she had used: her hearing could be in no better shape than his.

He peered over the piled rocks behind which he had huddled. "Mother

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of God, have mercy!" he whispered. Of itself, his hand leapt from his forehead to his breast as it shaped the sign of the cross.

He had been a soldier; he knew only too well that war was not the clean-cut affair of drama and glory the epic poets made it out to be. All the same, he was not prepared for the spectacle the lifting veils of acrid smoke were presenting to him.

The titanic blast had not slain all the Kirghiz, or even come close. A large majority of the nomads were riding north. From the desperate haste with which they used spurs and whips on their ponies, Argyros did not think they would pause this side of the pass. Observing what they were fleeing from, the magistrianos could not blame them.

In adapting the plan the Ephthalites had used against the King of Kings, Argyros knew he needed to force the Kirghiz to group more tightly than usual: thus the hellpowder charges that funneled them toward the wagon. Now he saw how appallingly well he had succeeded.

Close by the crater where the wagon had stood, few fragments were recognizable as surely being from man or horse. Freakishly, however, one of the jars of superwine that helped lure the nomads to disaster remained unbroken, though it, like much of the landscape there, was splashed with red.

Argyros had anticipated that central blast zone, and hoped it—and the noise that went with its creation—would be enough to intimidate the Kirghiz. He had not thought about what would lay beyond there, about what would happen when fragments of the wagon and fragments of the jars that had held the hellpowder were propelled violently outward after it ignited.

The results, especially when seen upside down in the surreal closeness the far-seer brought, reminded him of nothing so much as hell in a hot-tempered monk's sermon. Scythed-down men and horses, variously mutilated, writhed and bled and soundlessly screamed. That silence, somehow, was worst of all; it began to lift as the minutes went by and Argyros' hearing slowly returned.

Yet despite the horror, the magistrianos also understood Mirrane's delight at the scene before them. Never had a double handful of men not only vanquished but destroyed an enemy army; the stand of the Spartans at Thermopylae was as nothing beside this.

One by one, the rest of Argyros' crew nerved themselves to see what they had wrought. Most reacted with the same mixture of awe, horror, and pride the magistrianos felt. Others tried to emulate Eustathios Rhangabe's dispassionate stare; the artisan reacted to the grisly spectacle before him as if it were the final step in some complex and difficult geometric proof, a demonstration already grasped in the abstract.

For his part, Corippus looked as though he only regretted the carnage

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had not been greater. "Some of them will be a long time dying," he shouted Argyros' way, sounding delighted at the prospect. His eyes, for once, did not seem cold. He was savage as any Kirghiz, Argyros thought; the chief difference between him and them was in choice of masters. He made a deadly dangerous foe; the magistrianos was glad they were on the same side.

That thought brought his mind back to the woman next to him. Mirrane might have been able to see into his head. She said, "And now that they are done with, what do you plan to do about me?" She no longer sounded full of nothing but glee, and Argyros did not think that was solely concern for her own fate. She had been examining the results of the blast for several minutes now, and a long look at those was enough to sober anyone less grim of spirit than Corippus.

The magistrianos stayed silent so long that Mirrane glanced over to see if he'd heard. Her mouth tightened when she realized he had. She said, "If you intend to kill me, kill me cleanly—don't give me to your men for their sport. Were we reversed, captor and captive, I would do as much for you." Somehow, she managed one syllable of a laugh. "I hate to have to bellow to laugh, but my ears ring so, I can't help it."

"Yes, I believe you might give me a clean death," Argyros said musingly, though the ferocity of the King of King's torturers was a bugbear that frightened children all through the Empire. The magistrianos paused again; he had been thinking about what to do with Mirrane since they left Dariel, without coming up with any sure answer. Now, under her eyes, he had to. At last he said, as much to himself as to her, "I think I am going to bring you back to Constantinople."

"As you will." Mirrane fought to hold her voice toneless, but beneath her swarthiness her face grew pale; the ingenuity of the Emperor's torturers was a bugbear that frightened children all through Persia.

"I think you misunderstand me." Like Mirrane, Argyros found it odd to be carrying on this conversation near the top of his lungs, but had little choice. Spreading his hands, he went on, "If you had your henchmen here instead of the other way round, would you let me go back to my capital?"

"No," Mirrane answered at once; she was a professional.

The magistrianos had looked for no other reply from her. "You see my problem, then." She nodded, again promptly—in many ways the two of them spoke the same language, though he used Greek and she Persian. That reflection was part of what prompted him to continue, "I hadn't planned to put you in the gaol in the bowels of the Praitorion, or to send you to the Kynegion."—the amphitheater in northeastern Constantinople where the imperial headsmen plied their trade. "I meant that you should come back to the city with me."

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"Did you?" Mirrane lifted an eyebrow in the elegant Persian irony that could make even a sophisticated Roman less than self-assured. "Of course you know I will say yes to that: if I slept with you for the sake of duty in Daras, I suppose I can again, if need be. But why do you think you can make me stay in Constantinople? I escaped you there once, remember, on the spur of the moment. Do you imagine I could not do it again, given time to prepare?"

Argyros frowned; here, perhaps, was more professionalism than he wanted to find. He said, "Come or not, sleep with me or not, as you care to, not for any duty. As for leaving Constantinople, I dare say you are right—there are always ways and means. I can hope, though, you will not want to use them."

Mirrane looked at him in amusement. "If that is a confession of wild, passionate, undying love, I must own I've heard them better done."

"No doubt," Argyros said steadily. "The Master of Offices writes poetry; I fear I haven't the gift."

"Battle epics." Mirrane gave a scornful sniff.

The magistrianos supposed he should not have been surprised she knew what sort of poetry George Lakhanodrakon composed; the Romans kept such dossiers on high Persian officials. But he admired the way she brought it out pat.

He shook his head. This was no time to be bedeviled with side issues. He said, "I doubt you could pry a confession of wild, passionate, undying love from me with barbed whips or hot irons. To mean them fully, I fear one has to be half my age and innocent enough to think the world is always a sunny place. I'm sorry I can't oblige. I will say, though, I've found no woman but you since my wife died with whom I care to spend time out of bed as well as in. Will that do?"

It was Mirrane's turn to hesitate. When she did speak, she sounded as if she was thinking out loud, a habit Argyros also had: "You must mean this. You have the power behind you to do as you like with me here; you gain nothing from stringing me along." She still kept that inward look as she said, "I told you once in Constantinople we were two of a kind—do you remember?"

"Yes. Maybe I've finally decided to believe you."

"Have you?" Mirrane's voice remained reflective, but something subtle changed in it: "I suppose Constantinople has its share of fire-temples."

She was, the magistrianos thought, a master of the oblique thrust, murmuring in one breath how alike they were and then hammering home a fundamental difference. He said stiffly, "I would never give up hope that you might come to see that the truth lies in Christ." Seeing her nostrils flare, he made haste to add, "Those who follow the teachings of Zoroaster may worship in the city and the Empire, however, in return

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for the King of Kings not persecuting the Christians under his control . . . as I am sure you know perfectly well."

That last little jab won a smile from her. "Fair enough," she said, "though how you Christians can fail to see that evil is a live force of its own rather than a mere absence of good has always been beyond me." Her smile grew wider, more teasing. "I expect we will have time to argue it out."

He took a moment to find her meaning. When at last he did, his breath caught as he asked, "You'll come with me, then?"

"Well, why not? Didn't the two of us—not forgetting your men, of course—just put paid to a threat to both our countries? What better sets the stage for a more, ah, personal alliance?" Now she was wearing an impudent grin.

Argyros felt a similar expression stretch his face in unfamiliar ways. He looked again at the blast that had ruined the hopes of the Kirghiz and of Goarios. His eye lit on the miraculously unbroken bottle of *yperoinos*. Suddenly it seemed a very good omen. He pointed it out to Mirrane. "Shall we pledge ourselves with it?"

"Well, why not?" she said. ●

NEXT ISSUE:

Nineteenth-century Japan, in the days just after its first contact with Europeans, is the evocative setting for our May cover story, "Flowers of Edo," by **Bruce Sterling.** In Sterling's gifted hands, Old Japan is as strange and mysterious as any alien planet, and he spins a lively and fascinating tale of an ex-samurai who finds he must do battle with—quite literally—the demons of Progress. Sterling is one of those courageous writers who is always willing to tackle something new, with no two stories of his ever much alike, and "Flowers of Edo" is Sterling at his innovative and surprising best; don't miss it. From Old Japan, recent Nebula-winner **Nancy Kress** then takes us across the most distant reaches of space to a troubled alien world, for a powerful and unflinching study of the many different varieties of "Cannibals," in what is sure to be one of the year's most controversial stories. And **Frederik Pohl,** in a story sharing some of the same social background as his recent "Iriadeska's Martians," gives us an ironic look at "The View From Mars Hill."

Also in our jam-packed May issue: **Pat Cadigan** returns with a bittersweet story of the consequences of trust, in "Angel"; **Dave Smeds** makes his *IAsfm* debut with the brilliant and disturbing "Termites"; **Neal Barrett, Jr.** regales us with the very odd misadventures of little Maggie, in the hilarious "Perpetuity Blues," one of the funniest stories you're likely to read this year; **Steve Rasnic Tem** returns with a tale about an unusual kind of "Dinosaur"; and **Bruce Boston,** a frequent contributer of poetry, makes his *IAsfm* fiction debut with a taut little snapper about a "One-Trick Dog."

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(continued from page 20)

the dyshas, the Shanthas defended themselves.

The humans then developed a genetic-biological weapon that led to the destruction of most of the Shantha race. Meanwhile, a human engineer had genetically transformed two native creatures into bipedal intelligent creatures —the Muadra and the Boccord.

The war on Jorune was so total that all the races were thrown back to a primitive level.

Then, in a remarkable leap, the game scenario jumps ahead 3,500 years. Humans are now the most populous race, firmly in control. The Muadra have grown adept at energy manipulation, the Boccord have grown to be physical giants, and the Shanthas have survived in small numbers.

There is more in this game's background, an incredible wealth of material, but it's best I leave some room to tell about the role-playing system itself. It's presented in four attractive books, a Player's Manual, a Sholari Guide (for the Sholari, or game-guide), a Tauther Book (a player's reference work for Jorune), and an adventure, the "SkyRealm Kolovisondra."

The book's illustrated with rich Dürer-like drawings of all the creatures of Jorune, from the Cthulhoid "Di Chandra, posing for a Thibin artist," to the three-stage life cycle of the Giggit. The art has a sensitivity and subtlety not often found (if ever) in the game world.

And that same sophistication is found in the game. There are, for example, no "hit points" in combat. Instead, wounds damage the body, as in real life, with a series of charts detailing the type of damage depending on the attack and the weapon. Combat, in this game, is not an act to be engaged in lightly.

The characteristics of intelligent creatures (which include the Boccord, Muadra, and humans) include familiar things like the ability to Learn and Constitution, as well as Social (an index of one's current social acceptability) and Color (the ability to use the Isho, the energy of Jorune).

The Player's Manual covers skills and the combat system, all of it quite playable and clearly presented. The Sholari Guide covers the geology, flora and fauna, and the history of the planet. It's there that you'll learn the sad tale of the Shanthas, and which of the native drugs of Jorune can allow a creature to grow back a lost limb.

But as fascinating as the planet is, it's the SkyRealms, land masses suspended above ground by crystalline repulsion, that will beckon most visitors to Jorune. Formed by the unusual geology of the planet, the strange lands of the SkyRealms, floating over Jorune, are ripe for adventure.

This, then, is one of a kind. *SkyRealms of Jorune* is a brave, imaginative venture, and one well worth your interest. ●

MATTHEW J. COSTELLO

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ON BOOKS by Norman Spinrad

STURGEON, VONNEGUT, AND TROUT

Theodore Sturgeon's recent death, and the even more recent posthumous publication of *Godbody*, the only new Sturgeon novel to be published in a quarter of a century, has brought well-deserved new attention to the work of a great writer, who, incredibly enough, never achieved as much fame in the world at large as Kilgore Trout, the strangely ambivalent Sturgeon-figure who haunts many of the latter day works of Kurt Vonnegut.

So it goes.

When Vonnegut permitted the publication of a "Kilgore Trout novel" mentioned in his own work, *Venus on the Half Shell*, it wasn't even Sturgeon himself behind the pseudonym, it was Philip José Farmer who cashed Trout's checks. Ted, like Trout, stayed broke as usual.

So it goes.

Theodore Sturgeon is *still* probably the finest short story writer that the SF genre has produced, and arguably the finest American short story writer of the post World War II era, period. Yet only one of his long golden string of stories of the 40s, 50s, and early 60s, "The Man Who Lost the Sea," ever made it into Martha Foley's mainstream year's best series, and that was the high point of his recognition by the American literary establishment.

So it goes.

At least two of his very occasional novels, *More Than Human*, and *Some of Your Blood*, are acknowledged masterpieces. Yet Ted Sturgeon was also constrained by finances to not only do the novelization of Irwin Allen's original *Voyage to the Bottom of the Sea* feature film but to put his own name on it.

So it goes.

And now, here in 1986, we have the first publication of *Godbody*, a novel whose first draft was written in the early 1970s, and which Donald I. Fine has finally published unrevised.

So it goes.

But *what* goes here?

At a recent convention banquet Spider Robinson essayed a memorium to Theodore Sturgeon in the form of his version of a Lord Buckley rap in which Sturgeon, as a

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jazzman known as The Fish, finally gets to blow the critics away with a triumphant master riff.

No doubt Spider Robinson's intentions were informed by nothing but the warmest sentiments, and indeed when his performance was over, the fans gave a good round of applause to the happy ending.

But Robinson's rap was what Vonnegut calls a "foma," a lie that makes the listener feel brave and strong and happy.

Alas, it never happened. Oh yes, The Fish could have blown the socks off any short story writer extant and did it quite regularly in the SF cellar clubs, but they never let him up there on the stage at Birdland to jam with the acknowledged immortals.

So *that* goes.

Certain critics, including Robert A. Heinlein in the loving foreword, have opined that *Godbody* is the capstone of Sturgeon's career, while others have deemed it a mess whose posthumous publication does a disservice to Sturgeon's reputation. In a weird way, both opinions may be right.

Godbody is formally audacious to the max. Except for a final section which is told in author-omniscient third person, the entire novel is narrated in multiple first person. Eight characters narrate the story in sequence, and none of them reappear later as point of view, though they all figure in each other's narratives. I can't think of another novel that uses this form, and the only shorter work that I know of that does happens to be a novelette of my own, "The Big Flash."

And Sturgeon almost makes it work at novel length. Only at the end does he seem to find himself constrained to break form to tie things up in third-person author-omniscient.

On a prose level, *Godbody* is positively breathtaking. Almost no one but Sturgeon ever understood how to use style like this.

As Heinlein so rightly points out, you can open the book at random, and know which character is narrating after reading only a line or two.

But that is the least of it.

Much invidious advice has been offered to the innocent on the subject of prose style, and just as much on the subject of point of view. Some savants advise aspiring writers to develop their own consistent prose styles, and others advise them to entirely eschew first person narration.

Godbody demonstrates just what riches we may lose thereby in glorious words of many syllables.

By choosing the multiple first person narrative technique, Sturgeon allows himself the freedom to develop *eight* consistent prose styles in the course of one rather short novel.

Each character narrates his section in his own true voice, which, emerging into print, becomes the *character's* prose style, not the author's, with the character's idiosyncatic rhythms, vocabularies,

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philosophies, twitches, and conversational tropes.

Ted Sturgeon used first person frequently and never developed a consistent prose style. Even when he was writing in third person, the style was more often than not *the character's*, not Sturgeon-sprach.

Sturgeon's best work was character-centered. Oh yes, he knew how to tell stories and he had wondrous stories to tell, but the epiphanies and even the plot-climaxes always occurred within the human heart.

And Sturgeon's inner psychic landscapes were not just unicorn gardens as he sometimes liked to pretend. Ted *was* genuinely a sweet and loving man, and he certainly had a lot more to say about the varieties of love than about the varieties of hate, but even within the confines of a song of love like *Godbody*, he shows he can invent quite credible loathsomeness, too.

But always with compassion.

The main first person narrator in *Some of Your Blood* is a vile vampire who commits unspeakable acts. Sturgeon puts him under psychoanalysis, lets him speak for himself, and the monster comes out the other end as someone we care for. Sturgeon at the top of his form brings his readers deep, deep inside his characters, which, of course, he can only do by being willing to go there himself. Thus Sturgeon's moral courage, the courage to love his characters and thereby make the reader love them, no matter who and what they are.

This was the greatness of Sturgeon's vision, but the core of his greatness as a writer was that he could convey this vision through the medium of prose.

Yes, yes, I know, I have merely described what every writer of fiction should strive for.

But Theodore Sturgeon *knew how to do it, and on the deepest possible* level.

He knew that, in the real world, what people say and how they say it is the closest mirror we can have into what they are saying to themselves inside their own heads. He knew that in the world of fiction, the only real instrument we have for conveying the style of a character's consciousness is the style of the prose in which we tell his story.

You don't necessarily have to do it in first person, as Sturgeon does in *Godbody*, and Sturgeon himself used third person as often as not. True too that some writers with one consistent prose style do manage to get as deeply inside the spirits of their characters as Sturgeon does, and even with as much caring, as witness Philip K. Dick.

But no one who does not allow his style to mutate with his characters the way Sturgeon does can hope to have his range and depth at the same time.

Parts of *Godbody* are told by, variously, a cop, a rapist, a sincere minister, his sexually frustrated wife, a village Machiavelli, a plain girl with inner complexities, a slimy gossip columnist, and a middle-aged flower child. All of them have

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the same level of believability. All of them are people we come to truly understand, including the rapist. All of them are quite real.

Sturgeon achieves this by letting them all speak for themselves in their own voices. By using multiple first person instead of third, he is able to combine eight separate prose styles embodying eight different varieties of human spirit in the same novel without disorienting the reader.

In these terms, Robert Heinlein is right on, in terms of form and depth of characterization and prose style and their unification, *Godbody is* a masterpiece, and the capstone of Sturgeon's career. Even though this is essentially raw first draft, he hardly ever hits a stylistic sour note or lets one character's style leak over into another's.

But alas, those who believe that perhaps a first draft like this should not be published have a point too, especially since Sturgeon agreed with them.

For, as published, *Godbody* has a huge and rather obvious flaw, and that flaw is quite literally a flaw at the center of the novel, namely Godbody himself, the title character, the void about which the eight-fold wheel rotates, what the Vonnegut of *Cat's Cradle* might call the "wampeter of the karass."

Who is Godbody?

This is a question that reappears every once in a while, and it is also the last line of the novel. The problem is that Sturgeon never answers it in his own terms.

Godbody is a beautiful naked man who appears out of nowhere to the point of view characters and catalyzes deep changes in most of their lives, principally by awakening their positive libidinal energies and making them love one another in every possible sense. He is then tragically murdered at the end by the unconverted and rises on the third day. So what we have quite explicitly here is a sexualized Jesus figure, and indeed Dan Currier, Sturgeon's minister, attempts to use scripture to suggest that the true Christianity, the Christianity of Jesus himself, was in part a sexual mystery religion like tantric yoga, that in the true Christian spirit, sexual love is at least as valid a spiritual transcendence as mass or communion.

This is not entirely a new concept for Sturgeon. We hear echoes of it in *Venus Plus X*, "The Loverbirds," "Affair with a Green Monkey," even *Some of Your Blood*. But here it is stated most fully and candidly in a manner sure to raise the blood pressure of the Bible Belt.

Nor is this conceptual core the problem with *Godbody*. There is a brilliant if obscure novel, *Jesus Christs* by A.J. Langguth, which consists entirely of numerous retellings of the passion of Christ in different alternate world incarnations. Sturgeon's concept *could* have worked just as well. But it doesn't.

The problem with *Godbody* the novel is Godbody the character, and the problem with Godbody the character is that Sturgeon didn't

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seem to be able to figure out whether he should be played as a man on the same reality level as the viewpoint characters or played as a pure symbol, a forthright abstraction, a piece of magic realism.

He doesn't use Godbody's first person viewpoint, he doesn't get inside him at all, but that's not the problem either, that's conceptually appropriate to this sort of story in this sort of form. Philip K. Dick does it all the time, you can find it in a whole genre of political novels like *A Face in the Crowd*, and *All the King's Men*, I used it in *Passing Through the Flame*, and even Milton didn't attempt to portray the psyche of god.

If the central character is simply too vast for empathy, make him the void at the center about which the others rotate, aka the unmoved mover, the wampeter of the karass.

But if you are going to give the godhead speaking lines at all, they had better be good! Sturgeon, alas, does give Godbody a few lines of his own dialog, and they are studiedly ordinary, which jarringly breaks the limpid realism of the rest of the novel.

You can see what he was *trying* to do.

The recurring question in the novel is, who is Godbody?

And of course the only proper zen jesuit answer is—

Everybody.

Sturgeon was trying to portray the ordinariness of true saintliness, and, what can I say, he blew it. To see how it actually *can* be done, read Philip K. Dick's *The Transmigration of Timothy Archer*, in which Dick demonstrates the saintliness of a slightly retarded mechanic via his discussion of the characteristic flaws and virtues of various makes of cars.

Sturgeon also blew the ending of the novel, when he was forced to break form and describe the denouement in author-omniscient third person, because, apparently, he couldn't frame himself a first person viewpoint that would be in all the right places to tie the threads of the story together.

So what we have as published is neither the capstone of Sturgeon's career nor a misconceived failure. What we have here, quite simply, is the *first draft* of a potential masterpiece, that, alas, never got the necessary revisions.

A successful rewrite might not have been so difficult. One could, for example, reserve the first person viewpoint of the gossip columnist to narrate the resolution. Indeed, one could let her be transformed too, and let it happen then. And if you can't make Godbody speak magic prose in the rewrite, you can always leave him mute and make him more remote.

Theodore Sturgeon was a conscious and conscientious craftsman. He sat on this first draft for twenty years of bad road. It wasn't that he couldn't sell it, and it certainly wasn't that he didn't need the money. Indeed the book *was* sold to at least three different publishers during this period. But

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Sturgeon quite properly refused to have it published until he gave it the rewrite he knew damned well it needed.

But alas, he never rewrote it, not even with the wolf at the door already inside his premises and biting him on the ass.

Why he never rewrote it may have to remain a literary mystery, for Ted isn't around to tell us, may very well not have known himself, and the only witness remaining is, in a manner of speaking, Kilgore Trout.

The choice of name clearly proclaims that Vonnegut's failed science fiction writer is based on Theodore Sturgeon. But Vonnegut's Trout is not quite the Theodore Sturgeon that his friends and readers knew.

Not that there wasn't any Trout in Sturgeon. Like Vonnegut's version, the real Kilgore Trout was also chronically broke, enmeshed in marital and extra-marital complexities, and had a million little fuck-up mechanisms for keeping it that way. Like Trout, Sturgeon still managed to keep his sweetness and his optimism through it all.

But while Theodore Sturgeon might have lived the *life* of Kilgore Trout, Sturgeon, *the writer*, was the mirror-image of Trout.

Trout was a prolific hack who cranked out hundreds of pot-boilers. Trout's novels were superficially written botch-jobs of brilliantly bizarre conceptual notions.

Ted Sturgeon was a slow careful craftsman whose modest production of wordage was the hard-won product of an almost career-long battle with writer's block. Sturgeon was a deeply empathetic writer who lived and died with his characters, and his works were based solidly in their inner lives. Sturgeon was a master prose stylist, with hundreds of orchestral voices at his command, a far more accomplished stylist in terms of range than, say, Vonnegut himself.

But while Kilgore Trout may have more to say about Kurt Vonnegut as a writer than about Theodore Sturgeon's work, Vonnegut certainly *has* given us a bitterly affectionate send-up of the business end of Ted's career.

And while the first draft of *Godbody* is Sturgeon the literary genius caught in the act of creation with his pants not quite pulled up, how it came to be written is truer Trout than anything Vonnegut ever wrote, and true Theodore Sturgeon, too.

Ted hadn't written a novel in at least a decade, and as usual was in need of money when Brian Kirby offered him something like $1500 to write a novel for his Essex House line. Now in those days $1500 was a pretty standard advance for an SF novel, but the likes of Sturgeon could have gotten perhaps as much as $5000. So why did Ted agree to take a $1500 deal?

Well for one thing, he *had* gotten contracts for several SF novels, received the signature half of the ad-

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vances, all long gone by now, and now, from a certain warped perspective, couldn't afford to write them. A good Marxist explanation of writer's block. Having failed to deliver on a number of contracts with SF publishers, new contracts with money up front became somewhat difficult for Ted to obtain. A good capitalist explanation of writer's block, you better believe it, Karl!

Then too, Brian was a friend of Ted's and knew him well. All too well. "I know you, Ted," he told him. "The only way I'm going to get a novel out of you is if I pay you chapter by chapter. A hundred bucks up front, $150 every time you turn in a chapter."

Ted, who on a certain level of sanity, the same level that made him the writer that he was, knew *himself* all too well too, agreed.

And that is the Kilgore Trout of how *Godbody* came to be written.

But, ah, the Theodore Sturgeon of it!

A porn publisher had commissioned Brian Kirby to do a line of "high quality stiffeners." What Kirby's company knew about literature could be contained on the front page of the *National Enquirer* and often was. Kirby could publish anything he wanted to as an Essex House book as long as it had a good measure of explicit sex in it.

Kirby's thesis was that "there's no reason why good literature can't give you a hard-on." So he signed up poets like David Meltzer and Michael Perkins, rescued a Beat novel from years of non-publication, became an early publisher of Charles Bukowski, and went to science fiction writers like Charles Platt, Hank Stine, Philip Jose Farmer, and Theodore Sturgeon.

"Get it all out," Kirby told his writers. "Get crazy. There are no taboos or limits here. Anything you want as long as it's got fuck scenes in it."

Unlike other porn publishers, Kirby would not let respected names hide behind pseudonyms. "I don't want to publish something you're ashamed to put your name on," he told his writers.

Under these conditions, Philip José Farmer produced wild and sometimes terrifying sex and adventure romps like *Image of the Beast, Blown,* and *A Feast Unknown.* Hank Stine wrote a stylistically brilliant psychosexual novel, *Season of the Witch.* Bukowski wrote the usual gross sardonic humor. Meltzer wrote a long series of dark and violent science fiction novels reminiscent of William Burroughs. Perkins wrote, among other similar things, *Evil Companions,* my choice for the most brilliantly vile and fascinatingly repellent novel ever written, beside which *120 Days of Sodom* rates a soft "R."

And Ted wrote *Godbody.*

And *that* is the Theodore Sturgeon of it!

Released from all taboos and restrictions and told only that he had to write about sex, while most of the Essex House writers did gross-

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out comedy or cast spotlights on the creatures mating in the deepest darkest cellars of the savage id, Theodore Sturgeon produced this paen to the spiritually uplifting power of sexual love.

Well needless to say, while there's no reason why good literature can't give you a hard-on, it's not going to sell like hotcakes in stroke-book stores, where the patrons are sufficiently challenged by the task of holding the book and turning the pages with the same hand.

So Essex House folded before Kirby could extract the rewrite from Sturgeon and Ted sat on the first draft unto death two decades later, neither rewriting it nor allowing it to be published as is.

Why?

Easy enough to understand why Ted refused to publish it in the form we have now. It needed revision, and he knew it, and he was Theodore Sturgeon to the end, and wouldn't publish something he knew didn't work.

But why couldn't he figure out how to make it work?

The answer is no foma, it is not going to make anyone feel brave and strong and happy, and perhaps it is gauche of me to even mention it in print, but it's the only answer there is.

Ted was blocked for the last twenty years of his life. He wrote a few fine stories but only a few, and revising an entire novel conceptually may have been beyond his creative energies at the time.

For too many years had this dedicated and sensitive literary artist been forced to live the life of Kilgore Trout. *Godbody* could have been The Fish's master riff, but alas, Spider, he never got up there to blow it. They never let him in the door. And they didn't even let him die with his horn in his hand.

Kilgore Trout's creator, Kurt Vonnegut, also found himself, at an early stage in his career, in danger of being trapped on the outside looking in.

Like Sturgeon, Vonnegut was a literary artist whose thematic concerns, rather than genre ambitions, led him to write his own idiosyncratic kind of science fiction hardly calculated to win him a mantlepiece lined with Hugos. Unlike Sturgeon, Vonnegut also wrote an idiosyncratic sort of "mainstream fiction" too, and was able to place much of his short fiction in the big league slicks.

These days, of course, Vonnegut shrilly proclaims he was never a science fiction writer, but had he been making his move in the 80s instead of the 60s, he might now be just as righteously proclaiming he was never a mainstream writer, and with equal literary justification.

Because the borderline between Vonnegut's full-bore SF and his so-called mainstream fiction was always non-existent. He no more wrote mimetic contemporary novels than he did action adventure space opera.

He was always a kind of Amer-

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ican magic realist, a combination of Twain and Heller, Pynchon and Dick. In this part of the fictional universe, the contemporary present behaves like science fiction, and science fiction behaves like silly putty, so who is to say where the phase change takes place. Or if there is any at all.

Only the packagers, dummy!

Player Piano, Vonnegut's first novel, was a fairly gritty SF dystopia, in which the American middle class is automated out, obviously decades ahead of its time, but all too plausible today. It was quite a good novel, but it was published in a small hardcover edition and won no SF awards.

Sirens of Titan, his second novel, curiously enough, reads as if it could have been written by Trout, if only Trout could write with Vonnegut's mordant panache. Human history is revealed as an incredibly convoluted scam concocted by stranded aliens on Titan to send an idiot message back home to Tralfamador. There are more SF gimmicks, time loops, and reality tricks than a barrel of space monkeys. The message is really as grim as a message can get, but the book is a pleasure to read, a classic of its kind. This was published as straightforward SF, and got some genre attention, but no one was calling Vonnegut the man of the hour.

Mother Night, his third novel, concerned the identity crisis of one, ah, Howard W. Campbell, Jr. (get it? Vonnegut never did sell to *Astounding*) an American sleeper agent in Nazi Germany whose cover is his work as a Nazi propagandist and who ends up not quite knowing who he is or which side he's really on.

Now while a certain case for *Mother Night* as SF could be made by fanzine mandarins, in the real world it should have been eminently publishable as a major mainstream novel.

But it didn't happen. *Mother Night* was published as a paperback original in a package that leaned towards hinting that maybe it *was* science fiction in order to guarantee a certain base market. You could hear the truckdrivers say, as they filled the rack pockets: "Hey, this guy Vonnegut, he goes with the sci-fi, right?"

Well, unlike Sturgeon, Vonnegut (or at least his agent) had publishing street smarts or the right connections, probably both. He read the handwriting on the order forms, got his act together, and took it on the road, just in time to get *Cat's Cradle* published more or less in the manner it deserved.

If a novel which pivots on a speculative piece of very hard science, contains a made-up religion that in a curious way really works, and climaxes with the end of life on Earth may be said to contain at least marginal SF elements, then *Cat's Cradle* may be said to be science fiction, but fer chrissakes not on the cover!

While *Slaughterhouse Five* was the book that made Vonnegut a lit-

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erary superstar, *Cat's Cradle* and then *God Bless You, Mr. Rosewater* were the solid base that made the rapid ascent possible.

Cat's Cradle is still my favorite Vonnegut novel, and it was the first novel that brought Vonnegut to my attention; and while the former may be a minority opinion, the latter was a common experience, for it was the first Vonnegut novel to be published in a first class manner.

And it richly deserved to be. It is savage, mordant, funny, as usual, but there is something more, a kind of sad but jaunty affirmation largely missing from Vonnegut's other novels. Bokononism, the rasta-like religion of foma, of lies we can tell each other to feel better, seems a genuine affirmation of the best thing that Vonnegut can find to believe in, fictional creation itself. And when Bokonon lies down and freezes himself in a final posture of ultimate cosmic comic defiance, giving the finger to You Know Who, we feel the real Vonnegut displaying a rare moment of kinship with poor fucked-over humanity as he flips the malignantly indifferent universe the final juicy bird.

Cat's Cradle didn't become a big best seller, but it sold a lot of trade paperbacks over time, and justly made Vonnegut's reputation in the wider literary world as an important American novelist to watch.

God Bless You, Mr. Rosewater completed Vonnegut's disengagement from any lingering SF image. It is the story of the misadventures of a millionaire trying to give away his money to do good, a rather gentler version of Terry Southern's *The Magic Christian.* It has no SF elements at all and cemented Vonnegut's standing reputation as a major mainstream novelist.

But curiously enough, Eliot Rosewater's favorite writer is none other than Kilgore Trout. Just as Vonnegut had finished wiping the SF mud off his bootheels, Kilgore Trout began to haunt his work.

Then, of course, came *Slaughterhouse Five*, generally recognized as Vonnegut's masterpiece, and certainly the cornerstone of his reputation, and the rest is literary history.

Literary history with a rather Vonnegutian ironic kicker.

At the height of his success, literarily and financially, something elusive seemed to seep out of Vonnegut's work. The mordancy turned a bit over-bitter, story-telling tended to become perfunctory for want of any burning story to tell, characters became mouthpieces for the author, and most ominously, the work started becoming indulgently self-reflective.

And Kilgore Trout, who indeed had been Billy Pilgrim's favorite writer in *Slaughterhouse Five*, kept popping up to haunt him. He appears in *God Bless You, Mr. Rosewater, Slaughterhouse Five, Breakfast of Champions, Slapstick*, and is the wampeter of Vonnegut's latest, *Galapagos*, even as a kind of ghost.

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If Kurt Vonnegut had lived the life of Kilgore Trout, we would probably say that he's reached SF burn-out, the point at which imagination flags, and you start setting everything in the same fictional universe, and books start referring to other books, characters make guest appearances in each other's novels, and, in the terminal phase, the author ends up holding long fictional conversations with himself in his best-selling rubber room.

Which is not to say that Vonnegut has quite reached condition terminal. Vonnegut's last two, *Jailbird* and *Dead Eye Dick*, were more solid novels, and while *Galapagos*, his return to straight-on science fiction in everything but the cover copy, may seem genuinely depressed and fatigued, at least Vonnegut seems to be wrestling with the strange public warning he gave himself after the publication of *Slaughterhouse Five*.

He was quoted as saying, "Now that I've said everything I have to say, I'll shut up." In *Breakfast of Champions* he even attempted to lay off the cast of characters he had created.

Indeed, *Galapagos* seems like the ultimate attempt to shut down the works. Human assholery finally destroys the species. The only humans left a million years later are the descendents of Galapagos survivors who have devolved into a clade of mindless aquatic mammals and good riddance to the bad rubbish of their "overdeveloped brains."

And who, you may ask, is around as a viewpoint to narrate this grim tale from a million year retrospective?

None other than the son of Kilgore Trout, who, on the Day of Judgment was summoned to the other side of the Blue Vortex by the shade of his dead father, and, turning back, was constrained to endure the next million years of boredom for his sins until the Vortex and Kilgore Trout came for him again.

Well obviously, if Kilgore Trout began as Vonnegut's mordant send-up of the karma of science fiction writers like Theodore Sturgeon, he has by this time long since become a character of *Vonnegut's* literary psychodrama.

Trout's life is exactly what Vonnegut rescued himself from living with his worldly wisdom, what he might have become if, like Theodore Sturgeon, he hadn't been able to make the right moves to rescue himself from undeserved obscurity.

But why should such a literary ghost have the power to haunt Kurt Vonnegut? There is no danger of Vonnegut relapsing to such a state. The numbers say anything he writes will be a best seller. Surely no part of him can mourn for *Kilgore Trout's* way not taken!

Maybe. . . .

But if Theodore Sturgeon was the template for Trout's karmic dilemma, it was Vonnegut who wrote Kilgore Trout's novels in both the literal and literary senses.

Obviously all Trout's bizarre sci-

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fi premises are really the product of Vonnegut's imagination, but less obviously, Trout's work as described sounds much more like Vonnegut's earlier oeuvre than anything of Sturgeon's.

Sturgeon was no cosmic stand-up comic, and his worlds were almost always carefully and even conservatively well-worked-out and plausible.

If he had one weakness as a writer, it was that he was no surrealist, he played the reality game by the universe's rules.

Sturgeon's fiction is always realistic, in the sense that his worlds are rendered with verisimilitude, and his stories take place on a deep empathic stage of character. They don't zen dance across the surface like Vonnegut's successful novels, and they're anything but smart-ass cosmic gimmick stories like Trout's.

Vonnegut's Trout seems more like the voice of the science fiction writer Vonnegut escaped becoming spouting out the ream of sci-fi potboilers that Vonnegut mercifully never had to write. Half sigh of relief, half a shudder at what might have been, but for some fancy footwork and the right connections.

But *Sturgeon* was never in danger of devolving into a hack like Kilgore Trout. True, Ted, like Trout, was not a fancy publishing dancer, and, like Trout, never had the right connections to get himself on the best-seller list, or half the time to pay the rent.

But unlike Trout, Sturgeon was incapable of reaming out fast wordage for money. At his rate of production, he had no choice but to rely on quality and an understanding bank manager. Could it be that Vonnegut knows in his heart of hearts that *he* could have and probably would have ended up writing Trout's five foot shelf if his back had been pressed to Sturgeon's wall?

Of course Kilgore Trout can't really be *Vonnegut's* own doppelganger, can he? After all, unlike either Trout or Sturgeon, Vonnegut prevailed, he followed his own star and it took him to the big time.

Yet now it seems, in retrospect, that Vonnegut has gifted the fictional Kilgore Trout with one modest saving virtue that both he and Sturgeon might both wistfully admire as brothers under the skin.

Trout is a hack. He has the literary genius of neither Sturgeon nor Vonnegut. But, chronically depressive though he may be, he doesn't dry out, he doesn't stay blocked, and he doesn't become cynical either.

He keeps on cranking it out, he keeps on truckin' with all these crazy dreams in his head.

If Trout had had Sturgeon's talent, he might have been the champ. But if Sturgeon had Trout's sheer persistence at the typewriter, *Godbody* would have been rewritten into a masterpiece on a hot weekend in the early 70s, and The Fish might have gone on to knock 'em dead in the big time for the next decade.

And if Kurt Vonnegut had lis-

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tened to what the voice of Kilgore Trout was starting to whisper to him as early as *God Bless You, Mr. Rosewater*?

If he had trusted more in his crazy dreams after *Slaughterhouse Five* and not been quite so cagey, if he had spent his literary riches to good cause like Eliot Rosewater, if he had given a little freer reign to the Trout in him, might not the world look a little brighter now?

Would we and he have been spared the listless self-indulgence of *Breakfast of Champions* and *Slapstick* and the de-energized terminal pessimism of *Galapagos* and had instead another *Cat's Cradle* and *Slaughterhouse Five*? Even a string of good solid SF novels like *The Sirens of Titan* might have been preferable to what was actually produced.

What is Kilgore Trout trying to tell Kurt Vonnegut? That a hungry writer is a creative writer, that fame and fortune are harmful to the soul, that it is better to starve in a garret than to luxuriate in literary salons?

Give him a break, folks!

Sturgeon's career went that route, and look where it got him. Curiously enough, in a kind of psychic sense, much the same place Vonnegut seems to be now. Sometimes You Know Who likes to give us all the finger back.

Bokonon lay down on the ice and said fuck it, Sturgeon died with an unfinished masterpiece in first draft that gathered dust for a decade, but maybe in the end Kilgore Trout had the right idea. He just made the best of the bad hand of cards fate dealt him, and just kept cranking out his crazy ideas till the Blue Vortex came and got him.

The Blue Vortex has already gotten Trout when *Galapagos* begins, but even in the terminal bleakness of the extinction of earthly consciousness, Vonnegut lets us glimpse him shining through on the other side.

Maybe this is a good sign in a weary novel.

Maybe this is Vonnegut's foma to himself.

And if he finally believes it, it will make him strong and brave, and make his future readers happy.

Theodore Sturgeon could explain it better than I could. No one could explain it better. *Godbody*, for all its first draft flaws, still shines through with his warm knowing smile from the other side. But he's not here to enlighten our hearts anew any more.

The Blue Vortex came and got Ted too. ●

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SF CONVENTIONAL CALENDAR

by Erwin S. Strauss

Barely room for March's con(vention)s this time; check next issue early for later cons (subscribe!). Plan now for social weekends with your favorite SF authors, editors, artists and fellow fans. For a longer, later list, an explanation of cons, & a sample of SF folksongs, send me an SASE (addressed, stamped #10 (long) envelope) at 4271 Duke St. #D-10, Alexandria VA 22304. The hot line is (703) 823-3117. If a machine answers, leave your area code & number. I'll call back on my nickel. Early evening's a good time to phone cons (most are home numbers) (be polite). Send an SASE when writing cons. Look for me behind the "Filthy Pierre" badge, making music.

MARCH, 1987

13-16—**DrakeCon. % Chris O'Shea, 12 Stannard Rd., London E8 1DB, UK. (01) 241-3595.** Plymouth UK.

20-22—**MilleniCon, Box 636, Dayton OH 45405.** Hal ("Mission of Gravity") Clement, fan R. Hevelin.

20-22—**LunaCon, Box 338, New York NY 10150.** Tarrytown NY (direct trains from Grand Central). Jack ("Humanoids") Williamson, artist D. K. Sweet, Jack (Well of Souls) Chalker, Mike Resnick. 30th year.

26-29—**AlternaCon, Box 24207, Seattle WA 98124. (206) 723-2101 or 789-0599.** O. S. Card, artist D. Reeder, fans M. & R. Cantor, D. Hartwell. The NW SF Society annual, scaled down this year (only).

27-29—**Halcon, Box 295, Stn. M, Halifax NS B3J 2N7. (902) 465-2611.** Medieval fight demonstration.

27-29—**Nova, Box 61, Madison Heights MI 48071.** Tim Zahn, Geo. (Lan's Lantern) Lascowski. Gaming.

27-29—**ICon, Box 550, Stony Brook NY 11790. (516) 246-3673.** David Brin, Colin (Dr. Who) Baker.

27-29—**StellarCon, 2527 Branchwater Rd., Pleasant Garden NC 27213.** L. Niven, on the UNC-Greensboro campus.

APRIL, 1987

2-5—**AggieCon, Box J-1, MSC, Texas A&M U., College Station TX 77844. (409) 845-1515.** Ben Bova.

4—**AprilCon, B/C SF Society, 317 Ferris Booth Hall, New York NY 10027. (212) 280-3611.** Back in April.

AUGUST, 1987

27-Sep. 2—**Conspiracy '87, 23 Kensington Ct., Hempstead NY 11550.** In UK. WorldCon. $50 to 3/31.

SEPTEMBER, 1987

5-8—**CactusCon, Box 27201, Tempe AZ 85282.** Phoenix AZ. The NASFiC. $40 in advance.

SEPTEMBER, 1988

1-5—**NoLaCon II, Box 8010, New Orleans LA 70182. (504) 821-2362.** Don Wollheim. WorldCon '88.

AUGUST, 1989

31-Sep. 4—**Noreascon 3, Box 46, MIT PO, Cambridge MA 02139.** Boston, MA WorldCon 1989.

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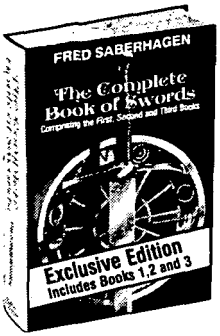
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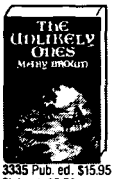

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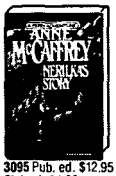

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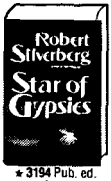

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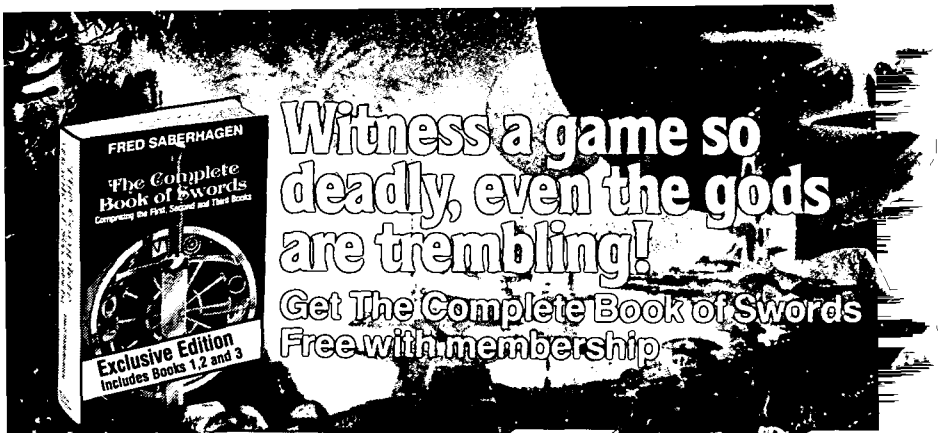
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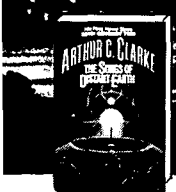

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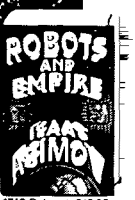

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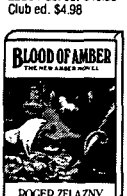

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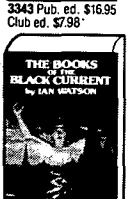

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